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ABSTRACT

The institute, "Innovations in School Librarianship," was conducted by The Florida State University in cooperation with the Florida Department of Education. Participants in the workshop were persons employed as school district level media personnel in Florida public school systems. The purpose was to increase their competence in planning, developing and evaluating effective system-wide media programs. The need for such competence has been sharply accentuated by recent state legislative actions and subsequent policy changes by the Department of Education which mandated an appraisal of all programs as to effectiveness, efficiency, and utilization of resources. The seminar approach was used, enabling participants to exchange views and reinforce principles. Emphasis was placed on the development of evaluative instruments, implementation of standards, procedures to assure accountability, and on the design of needs assessment as they relate to school media programs. Presentations to the entire group was made by staff members and visiting lecturers in order to impart information needed by all of the participants. This document is a record of those presentations. (Author)

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innovations in school librarianship

Papers Presented at an Institute conducted by The Florida State University in cooperation with the Florida Department of Education

July 24- August 4, 1972
Tallahassee, Florida

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TABLE OF CONTENTS

FOREWORD i

PAPERS

AVENUES TO EXCELLENCE
Avenues to Excellence - Shelley S. Boone 1
Innovations in School Librarianship - Harold Goldstein 4

EDUCATIONAL GOALS
Establishing Educational Goals - Thomas W. Downen 7
Goals for Education in Florida - Cecil Golden 11
Goals for School Libraries in Florida - Sara Srygley 16

EVALUATING EDUCATION GOALS
Computer Innovations for School Librarianship - Duncan Hansen 21
How to Develop Educational Models - Jacob Beard 27
Why Accountability - Leon Lessinger 35

TECHNIQUES TO ASSURE ACCOUNTABILITY
Cost Analysis Management Information System - David Morris 48
Program Planning Budgeting System - Robert Garvue 57

PLANNING TO ACHIEVE
Florida Department of Education Planning Model 64

FINANCING PUBLIC SCHOOL EDUCATION
The Decade of Reform in Educational Finance - James A. Kelley 74
Financing Florida Schools - Terrell Sessums 86
The National Educational Finance Project - Kern Alexander 95

PLANNING FOR EDUCATIONAL MEDIA PROGRAMS
Comprehensive Educational Planning - John Wheeler 104

TECHNOLOGY: WHAT'S HAPPENING
Media and Technology in the Contemporary Library - Charles R. Byrd 110

UTILIZATION OF HUMAN RESOURCES
New Approaches to Staff Utilization - Shirley Aaron 115
Role of the Supervisor for Staff Development - Elinor Yungmeyer 128

FUTURE FLORIDA SCHOOL MEDIA PROGRAM
Where are we? A Report of Florida School Media Programs - Elizabeth Mann 132
You Can't Tell Which Way the Train Went by Looking at the Tracks - Joseph W. Crenshaw 143

INSTITUTE STAFF 155

INSTITUTE PARTICIPANTS 157

FOREWORD

Purpose

The institute, Innovations in School Librarianship, was conducted by The Florida State University in cooperation with the Florida Department of Education.

Participants in the workshop were persons employed as school district level media personnel in Florida public school systems. The purpose was to increase their competence in planning, developing and evaluating effective system-wide media programs. The need for such competence had been sharply accentuated by recent state legislative actions and subsequent policy changes by the Department of Education which mandated an appraisal of all programs as to effectiveness, efficiency, and utilization of resources.

Format

The seminar approach was used, enabling participants to exchange views and reinforce principles. Emphasis was placed on the development of evaluative instruments, implementation of standards, procedures to assure accountability, and on the design of needs assessment as they relate to school media programs.

Presentations to the entire group were made by staff members and visiting lecturers in order to impart information needed by all of the participants. This document is a record of those presentations. A portion of the institute day was devoted to small group activity with approximately ten participants working on topics growing out of the basic presentations. Individual projects were also part of the Institute. These group and individual projects are not included in those Proceedings.

Shelley S. Boone
Deputy Commissioner
Department of Education
State of Florida

AVENUES TO EXCELLENCE

It is a pleasure to be here. Looking over your program, I see that you have before you sessions on educational goals, accountability, cost analysis, management information systems, PPBS, the Florida model for educational planning, school finance, new technologies, and utilization of human resources. All these areas will be important to those of you in educational media in the 70's. I am convinced that most of us, through the years, have lived within our own areas of specialty, and maybe didn't know enough about each other. This workshop will give you an opportunity to get together in some different areas. I am very pleased to be able to state that perhaps there is more togetherness in the educational section of Florida than we have had in a long time, perhaps ever.

We hear a lot about accountability. Accountability demands knowledge. The "Knowledge Explosion" has long since become a cliche. Despite our discovery of a vast quantity of new knowledge, our methods of distributing this knowledge is still inadequate and sometimes chaotic. How can we share this vast storehouse of knowledge and provide excellence for all?

The aspiring learner needs direct access to models of excellence in critical reading, listening, observing, and thinking. He must have avenues opened, avenues to excellence, opportunities to enjoy productive experiences at first hand, to associate with the best teachers, to have readily available the best books, films, music, painting, architecture, and photography.

In today's world, an educated individual is one who has learned how to learn: to think and to use various methods of inquiry in examining and exploring ideas, as opposed to one who has merely memorized the facts. The "Goals for Education in Florida", adopted in April, 1971, by the State Board of Education includes as one of the students' goals the following statement: "All students shall develop and use skills in the logical processes of search, analysis, evaluation and problem solving, in critical thinking, and in the use of symbolism."

Such goals mandate a new, more relevant instructional pattern: new curricula, new organizations, new resources.

New and revised school curricula require that teachers and students master the method of study required in a given discipline and that they have opportunities to apply the methodology of that discipline to significant segments of its content. To accomplish this, students

must have ready access to all kinds of media, as well as instruction and assistance in their effective use.

In the area of organization for teaching, such developments as team teaching, large and small group instruction, seminars, and independent study have placed an increased emphasis on the avai - ability of materials for student use. The increasing use of modular scheduling in secondary schools has freed students to make more independent use of information sources than has been the case in schools with more traditional scheduling practices. In short, making learning more interesting and making teaching more effective require flexibility which can be achieved only through the use of many kinds of materials and techniques.

Such flexibility requires resources: a media center with an ample, well organized, varied collection of materials, administered by a competent staff of professional and para-professional personnel who work closely and effectively with administrators, teachers, and students as as integral part of the learning-teaching process. It is clear that in order to provide all persons with avenues to excellence we must make integrated use of all media.

In addition to our present emphasis on reading and writing, we must make greater use of speaking and listening and visualizing and observing. An often neglected way to achieve access to excellence is through conversation: dialogue and discussion. The great art of discussion is not talking it is listening. It is listening with the ear of compassion, the ear of sensitivity, the empathic ear. I recall before the War, the great War, having been in small college where I knew my professors and where we sat on a bench in a quadrangle and we talked professor to student and we listened much more attentively than in the classroom and it meant something.

The reward of excellence does not come easily: it requires discipline to achieve it.

We must plan for it.

We must set goals to reach it.

We must plan and implement goal changes and innovation.

We must establish priorities to achieve it.

We must set aside adequate resources to support it.

We must keep in mind the learning needs of everyone.

We must evaluate progress and modify our course as necessary.

We must never lose sight of excellence as our primary goal.

Yours is a great challenge. The need is great; the work is great. It is time to reflect seriously on your roles in education. You are highly skilled, highly educated people in this thing we call library/media services, and above all, you, the people, the human resources, are the most important elements on the avenues to excellence.

God Bless.

Harold Goldstein
School of Library Science
Florida State University

AVENUES TO EXCELLENCE RE INNOVATIONS IN SCHOOL LIBRARIANSHIP

Welcome to a select group: not to just that group which has been selected -- i.e., approved to come -- but to a more important total of which this small gathering is a part. That total is the group everywhere which is concerned enough about what they do for a living, how well they do it, and what results are obtained.

I refer, of course, to those educational specialists who see a need constantly for continuing self-development and continuing re-orientation to the changing needs of education which must be offered by redirected schools serving a changing society. There is no way as they say, of accommodating to change -- or helping to direct it -- without the kind of experience you are involved in for the next two weeks. You accepted the offer (or sought it -- either way fits my gold star roster); you'll be well involved and you'll work hard; then, finally, the proof of the pudding will be the aftertaste (or lingering aroma) of what went on during these two weeks.

The program planners for this institute are all veterans of the problem which is before us: increased demands for more skills to do a more complex job -- with, perhaps, fewer people -- to meet redirected, newer objectives. I think of them as a headquarters group which is concerned with and "enrolling members" in AAA (3, I said): accessibility of ideas -- resources -- personnel; acceptability by the media specialist of the charge to do a better job and make it visible; and accountability to colleagues -- students -- administrators -- anyone else for the job done. These goals are/should be the basic tenets of all education, particularly, however, they must be continuously-visible elements of any innovative undertaking which requires new adaptations and revitalized performances.

Strange, isn't it, that today, immersed as we are up to the eyebrows in a sea of media, that we must mediate our colleagues so that they are media concerned and media active. Who would have been willing to bet in 1949 that, by 1969, 98 percent of all American homes would have TV sets turned on from 6 -- 32 hours per week? (and who knows really whether this is "up time" or "down time," as automation people say?) But it is a fact, as are many other possible allusions to the world of now (small letters); and the further fact is that you, on the forefront of educational operations, have a tough time bringing the educational establishment up to and along with you.

I used 3-"A" words: accessibility, acceptability (sic!) and accountability. Accessibility in my use here is your professional expertise used to build resources, provide services, relate yourself to the education team and its objectives, and also being avail-

able to your educational community. Acceptability is being able to be credible: to convey the idea that what you do is credible and meaningful -- honest in its professional caliber; thorough in its relation to objectives/needs/evaluation of the total program to which you relate; and finally, but not leastly, that you, as a media specialist, are regarded as valuable -- approachable -- workable -- adjustable.

Accountability as a piece of the action is relatively new in its emergence as an important concern, but it is hardly new in the validity of its relation to our total educational effort. If your program is accountable positively, I take it to mean that you've accounted for the media services operation on the right side with respect to the building or district; that you've given an account of what came in and what went out, and that you can be counted on to continue to examine what you do in terms of why you do it and for whom. There are, of course, more dimensions to this term; but let me stop with this simplified account of accountability.

The two weeks in Tallahassee will deal with these points, and more. But, then, what did you expect when you allowed yourselves to be drawn into a continuing or enlarging self-education venture? You all have degrees, many of them from institutions as worthy as this one; yet you have agreed you need more than that degree, wherever you get it, to get on with the responsibilities at hand.

I take kindly to that concept: it means to me that, whether or not you expected the degree to provide you with a perpetual motion machine which would be capable forever of supplying answers -- ideas -- directions to changing educational demands, you have agreed that no one completed educational attainment will win the continuing educational battle. If this School at this University has provided you with the basic knowledge, skills, and attitudes which resulted in your being here (and having attended other such ventures, my colleagues have every right to be proud that, indeed, our program is able to keep the learning drive alive), we are glad to welcome you back even for only a two-weeks "go-at-it."

The School has adjusted somewhat to these changes in education and media services, as the goals and demands have changed. Perhaps our adjustment is slower, and certainly the changed approach -- new look -- is not complete. But you should know, from the caliber and expertise of the program staff, that the School, through its own connections to the mainstream via individual routes such as Sara Srygley's, is in constant contact with the library/media professions; and that these contacts will help us -- if not indeed force us -- to accommodate to change. We view seriously the challenge to both our program and the success of our graduates with any or all changes in philosophy -- goals -- action -- accountability in the total scope of education have for them and for us: In accepting

this responsibility for adjustment, we trust that we can change for the better. That betterment, in many ways, is evidenced by the immediate willingness of my colleagues to assume responsibility when asked for planning and implementing inservice education experiences such as this one, as an acceptance in all aspects of education according to their own specialties and expertise.

There are many new devices, new resources, new activities which are within the definition of innovation; many of them will be discussed in the content of these two weeks. Your pleasure in acquaintanceship with new directions will be directly related to the lack of pain felt as a result of dealing with newness and in the depth of your previous experience with change. What you will hear, see, discuss, and do will become part of "AAA" membership. The "membership" idea, if you don't dwell on it too seriously or too long, is actually one avenue to excellence. Such an avenue for such an achievement is a long and wide one, of necessity. You won't travel it in a moment; you won't achieve the end result overnight. But serious efforts such as this inservice education venture are perhaps the only way we can hope to see excellence in action. And you are already aware of the need for change/advancement, or you wouldn't be here. You are leaders, in that overworked definition, because you've lead in this area; and as leaders, improvement toward the highest qualities is a part of every leader's role.

We hope that you'll enjoy these involvements, utilize their values and results, and continue to be active club members after the institute becomes only a memory. All of my non-institute colleagues welcome you, and if we can help in any way to make these two weeks even more effective, you have only to ask.

Welcome to Tallahassee, The Florida State University, and to this important educational experience.

Dr. Thomas Downen
Assistant Professor
School of Library Science
University of Michigan
Ann Arbor, Michigan

ESTABLISHING EDUCATIONAL GOALS

What are educational goals? When viewed in the context of curriculum development, it is possible to gain some understanding of the usage in the educational enterprise. Goal setting, including the establishment of specific objectives; strategy development, including the selection and organization of learning activities; and evaluation to determine progress toward the objectives have formed the traditional pattern of curriculum development.[1]

A simplistic definition of a goal statement is that it is a mission statement, or statements which reflect a mission. Another attempt of definition is that it is a statement which expresses an organization's reason for being as well as its aspirations. These statements project expectations and define products of the enterprise. Goal statements, as defined in Goals for Education in Florida,[2] are limited to broad statements which specify no criteria for achievement. These statements imply no constraints on resources, specify no time limits for attainment, are visionary, and are non-permanent. In other words, they are flexible and can be changed. In this document, all goals are considered to be of equal importance rather than being "prioritized" as is the case in some states.

It is important to consider the necessity of having goals. Obviously they give direction to an enterprise. Unless you know where you want to go, you won't know where you want to be, even after you get there. Goals are essential, too, as a basis for evaluation in order that you can determine if you really are there.

It is imperative that educational goals be developed prior to the development of objectives. That is, the development of statements which describe observable and measurable outcomes desired. Goals and their supporting objectives are becoming important as far as accreditation is concerned. One state which is using this approach for accreditation is Colorado. In 1969, a new policy was developed for accrediting its schools. Goals, which are developed by the local school community, are used rather than minimum standards developed by the state. The new program is known as "Accreditation by Contract." The format of this program consists of five sequential steps: (1) the local school-community identifies its goals for education through the involvement of all who have an interest in the educational enterprise--pupils, parents, teachers, and other members of the community; (2) goals are "prioritized" since everything cannot be done at once; (3) a shower of objectives is then developed for each goal selected for action; (4) implementation programs, which include activities and resources, are developed for each objective; and (5) at this point, the entire program becomes the educational plan for the school community and is

covered by a performance contract, which the local board signs and submits to the State Board of Education as the basis for school accreditation. At the time of the State Board of Education signature, the school is accredited by and under the contract.[3]

Impetus is being given to the development of educational goals throughout the country as more and more school systems are being asked to define their educational goals and what will it cost to achieve them? Goals are essential for the implementation of this type of planning, programming model of systems operation.

What kind of help is being given to those involved in developing educational goals? The California School Board Association has developed a document entitled Educational Goals and Objectives.[4] In this work are eighteen goal categories which can be used by local school systems to aid them in developing their own goal statements. Examples of these goal categories are: the skill to acquire and transmit knowledge, the skill to use and evaluate knowledge, peer relationships, physical health and safety, and career and occupation selection.[5] In the Florida document related to educational goals, six broad categories have been determined as goals for student development: communication and learning skills, citizenship education, occupational interests, mental and physical health, home and family relationships, aesthetic and cultural appreciations, and human relations.[6]

Involvement is an important aspect to consider when developing the educational goals for the school community. Through involvement an intrinsic motivational factor should arise. Involvement can and should create interest resulting in this type of motivation which can provide great deal of support for the educational enterprise. In the Las Virgenes Unified School District in Calabasas, California, involvement has become a key word. This district holds a district-wide Goals Conference annually involving school board members, teachers, administrators, and the community.[7] The participants work on goals for all aspects of the school system and try to effect a meaningful dialogue. Because of this type of involvement and sharing of information, the system has received a great deal of financial support. The citizens know what the schools want to accomplish and are directly involved in establishing the goals of the school system.

Other methods of obtaining input for developing educational goals for your school system are through such simple devices as questionnaires and opinion polls. Any means of obtaining input and involving people of the school community can only result in support and understanding of your operation.

The state of Colorado has developed a model for establishing goals

and pinpointing high motivational areas using input from all persons with a vested interest in the educational enterprise--pupils, parents, teachers, and institutions. Using this model, educational goals are developed and goal areas are identified in which motivation is high for pupils, parents, and teachers. Those areas in which there is congruency, as far as high motivation is concerned, are deemed best suited for developing the initial learning--that is, these are the priority goal areas.[8]

It is often taken for granted that everyone in an enterprise knows the direction of the enterprise and what is hoped to be accomplished. This is not always the case. Differences can exist because individuals might have differing perceptions of the task. It is essential that the enterprise have a clearly defined mission because a system is a grouping of objects which form a unit which in turn has properties not possessed by the individual objects. It is vital that all personnel involved understand the mission. Questions must be raised and dialogues established. How do individuals conceptualize their contribution to the mission? Do they agree with the goals of the mission or do they have beliefs which are different? Lines of communication must be established among those involved in the educational enterprise--pupils, teachers, parents, and administrators--to identify the central mission of the enterprise. The systems approach requires clearly defined mission or goal statements which provide direction for the system as it operates on a day-to-day, week-to-week basis.

FOOTNOTES

[1]Stuart C. Ranklin, "Educational Goals in a Pluralistic Society," Educational Leadership, XXVIII (March, 1971), 576.

[2]Florida, Department of Education, Goals for Education in Florida, (Tallahassee: Department of Education, n.d.), p.3.

[3]Rolland O. Powell, "Putting Goals to Work," Educational Leadership, XXVIII (March, 1971), 608.

[4]California School Boards Association, Educational Goals and Objectives (the Association: September, 1969), as cited by James A. Livingston, in "Educational Goals and Program Planning Budgeting System (PPBS)," Journal of Secondary Education, XLIV (November, 1971), 307.

[5]James A. Livingston, "Educational Goals and Program Planning Budgeting System (PPBS)," Journal of Secondary Education, XLIV (November, 1971), 307-9.

[6]Florida, Department of Education, Goals, pp. 6-9.

[7]Robert Boehme and Everett P. Buchan, "Goals Conference: Dialogue and Direction," Educational Leadership, XXVIII (March, 1971), 611-13.

[8]Powell, "Putting Goals to Work," 609.

Wm. Cecil Golden
Associate Commissioner
Planning and Coordination
Department of Education

GOALS FOR EDUCATION IN FLORIDA

As we move toward an educational system in which accountability for pupil learning assumes equal status with accountability for dollars, greater attention must be given to the establishment of goals and objectives of public education and to the management of educational programs to assure that the needs of pupils are actually met.

The continuous improvement of Florida's system of public education is a matter of prime concern to school board members, superintendents, educators, students and citizens in each school district. To accomplish this it is necessary that there be clearly established procedures for establishing goals and objectives and that those affected by them and those expected to implement them be fully informed about these proceduces and have an opportunity to participate in identifying needs and establishing goals for public education.

The Tenth Amendment of the United States Constitution assigns to the states those powers which are neither reserved to the federal government nor denied to the states. Among these is education. Public education is clearly a state responsibility.

The Constitution of the State of Florida states that:

> Adequate provision shall be made by law for a uniform system of free public schools and for the establishment, maintenance and operation of institutions of higher learning and other public education programs that the needs of the people may require. (Article IX, Section 1)

The Constitution also provides for a state commissioner of education, a state board of education, district school superintendents, and district school boards.

Both the state commissioner and state board are charged by the Constitution with the supervision of the system of public education as provided by law.

The State Constitution requires the Legislature to prescribe the nature and scope of the state system of public education and to define the responsibilities of the State Commissioner and State Board. This has been accomplished with broad statutory powers and responsibilities assigned to the State Board and Commissioner, but with actual operation of educational programs delegated to district school boards, superintnedents, and staffs.

Additional state level action, during the past five years, to improve education includes the following:

*1968 -- The Legislature adopted policy requiring district school boards to develop a comprehensive program of staff development -- including all services under the district board and provision for adequate funding. (Section 230.23(4)(1), Florida Statutes)

*1969 -- The State Board of Education adopted an official statement of the "State Role in Education." (Section 229.053(2), Florida Statutes)

1. To establish state-wide educational objectives.
2. To establish objectives which shall receive highest priority for given time periods.
3. To establish a sound program of financial support.
4. To provide efficient coordination and distribution of funds.
5. To establish minimum standards for achievement and quality control.
6. To assist localities in evaluating results.
7. To develop a good information system on the facts and conditions of education.
8. To provide incentives to local school systems and institutions to go beyond minimum performance.
9. To make available to local school systems and institutions consultative services they cannot reasonably provide from their own resources.

It is notable that these nine responsibilities can be grouped into three categories:

1. Five of the nine responsibilities -- 1, 2, 5, 6 and 7 -- are concerned with establishing educational objectives and measuring their attainment. Number 8 is partially related to that same topic.
2. Two of the responsibilities -- numbers 3 and 4 -- pertain to financial support.
3. The final responsibility is to provide consultative services.

*1969 -- The Legislature adopted policy endorsing the concept of developmental capital for improving education -- appropriating funds to be used solely for R & D in search of answers to present and future critical needs of education. (Section 229.561, Florida Statutes)

*1970 -- The Legislature adopted policy that student progress be assessed -- measured against predetermined objectives adopted by the State Board of Education and local Education systems. (Chapter 70-399, Laws of Florida)

*1971 -- The Legislature adopted policy endorsing educational accountability to provide validated information for decision making at the classroom, school, district and state level through the process of establishing objectives, assessment of the degree to which the objectives are being achieved, and an analysis of the differential effectiveness and costs of educational programs. (Section 229.57, Florida Statutes)

The new program to establish objectives and to assess student progress (utilizing both criterion and norm referenced tests); the revision of the state required uniform budgeting and accounting procedures to provide better information for cost analysis and management information (CAMIS); and the new procedures for analyzing and measuring resource utilization are being developed with funds provided by R & D to implement this policy. These programs and procedures are being carefully developed to incorporate and reinforce in a comprehensive coordinated manner the many existing state programs such as school accreditation.

*1972 -- The Legislature and the State Board of Education revised statutes and regulations to provide greater flexibility to those who operate educational programs and make them more accountable for the results. (Chapter 72-221, Lawe of Florida)

The state's officially adopted "change strategy" consists of three basic elements:

1. Clarifying Goals and Objectives -- What educational programs ought to accomplish and what is being accomplished.
2. Assessment and Analysis -- Concentrating on finding out how well the goals and objectives are being attained.
3. Alternative Practices -- Identifying additional and better ways to achieve objectives.

Along with the change strategy, the state has adopted an official approach to its leadership for improving education which is:

To provide greater flexibility to those who operate educational programs, but at the same time make them more accountable for the results.

In order for the parent, student, teacher, principal, superintendent, and school board member to be accountable for education it is necessary that the following conditions exist:

* Objectives are stated in measurable terms.
* Responsibility for achieving objectives is definitely

assigned.
* The conditions under which the responsibility is to be carried out are specified.
* Line of authority is clearly established.

In addition, if those who are accountable are to attain maximum results they must:

* Have access to techniques and procedures for analyzing and explaining resource utilization and educational results.
* Master techniques and procedures for analyzing and explaining resource utilization and educational results.
* Have control over allocated resources so that use of these resources can be modified when the desired results are not being attained.

The Constitution of the State of Florida states that:

> The school board shall operate, control and supervise all free public schools within the school district and determine the rate of school district taxes within the limits prescribed herein. Two or more school districts may operate and finance joint educational programs. (Article XI, Section 4)

The district school board has the responsibility to levy district ad valorem taxes up to the 10 mill maximum authorized by the Constitution. All other taxes are "preempted to the state" except as provided by general laws; therefore, additional funds required to operate the schools must come from outside the district. Along with the constitutional requirement that "adequate provision shall be made by law for a uniform system of free public schools..." the Constitution provides that "State funds may be appropriated (by the legislature) to the several counties, school districts, municipalities or special districts upon such conditions as may be provided by general law." (Article VII, Section 8)

The state has a constitutional and statutory responsibility to carry out both administrative and leadership activities in education. The aggregate responsibilities and activities of the State Board, the Commissioner, and the Department of Education can be placed in two categories:

* Those directed toward maintaining the effectiveness and efficiency of present educational practices as directed by statutes, regulations, and professional standards.
* Those directed toward identifying, developing, and encouraging new or improved procedures and practices in educational institutions.

In 1968 the Commissioner was charged, by the Legislature, specifically to strengthen the renewal aspect of state educational leadership. Section 229.551, Florida Statutes, directs the Commissioner to "...as rapidly as feasible expand the capability of the department of education in planning the state's strategy for effecting constructive educational change and providing and coordinating creative services necessary to achieve greater quality in education."

The Constitution of Florida provides for a uniform system of free public schools and for the establishment, maintenance and operation of institutions of higher learning and other education programs that the needs of the people may require. The Florida School Code provides for the establishment of such minimum standards and regulations as shall tend to assure efficient operation of all schools and adequate educational opportunities for all children. To these ends, the State Board of Education, on April 6, 1971, adopted a statement of goals for public school education in the State of Florida. These goals are grouped in two sectors:

1. Goals for student development.
2. Goals for the educational system itself.

In establishing these goals the State Board took into consideration these four principles:

1. The goals for an educational system should be comprehensive, in the sense that they must encompass the needs of the total population, including all economic and ethnic groups, and all ages.
2. Each goal should be identified in terms of a function it will perform in the life of the individual; at the same time, the tendency to identify goals because they are traditional must be scrupulously avoided.
3. Goals must be based upon projections of the conditions of life in the future, and not be circumscribed by currently existing conditions.
4. The total set of goals must exhibit a balance in terms of the totality of the individual's adult activities, including occupational, social, and leisure time pursuits.

Taking these considerations into account, the goals of education can be conceived in terms of the life activities of human adults in modern society. These activities may generally be placed in three categories: occupational, citizenship, and self-fulfillment. By constructing such a framework, it becomes possible to state the kinds of performance which should equip adults to function effectively in society--the objectives of education.

Sara Srygley
Professor
Library Science
Florida State University

GOALS FOR SCHOOL LIBRARIES IN FLORIDA

Goals for school libraries in Florida may be identified through direct statements in official publications or through implied objectives revealed in statewide action programs. A review of state publications related to school library media programs and of efforts of Florida's school library media specialists toward improvement suggests that we have tended to operate with implied, rather than clearly stated goals.

For more than three decades we have assumed in Florida that:

1) Library media services are essential as one means to achieving quality education.
2) Library media services are essential at all levels in the educational structure, from preschool through secondary levels.
3) Young people learn differently if their teachers understand the role and potential of media in learning and activate this understanding in teaching methods or strategies.
4) Young people may be changed in attitude, understanding, and behavior if they have easy access to media and related services in media for independent learning as well as that motivated by course assignments. (This refers to the accidental or incidental learning affected by the environment in which learners live and develop).
5) Academic achievement as reflected in statewide and national testing programs can be affected by the nature and quality of school library media programs.

In our planning, Florida's school media specialists have assumed further that superintendents, principals, teachers, general supervisors and other educational specialists understand and accept the great tenets of our faith, not to mention school board members, parents and other taxpayers. We have acted as if we believe that the education profession generally has agreement in perceptions of the role and the significance of school media programs. Perhaps we should now reassess this belief.

We are challenged today to devise better strategy to ensure our involvement in educational planning, particularly at the state level and in many cases at the district level. In these times we find important groups assembled as citizens groups, legislative committees, or professional bodies in the Department of Education, earnestly attempting to determine the proper goals for education in the 70's, to identify the necessary steps for achieving such goals,

and to assess current efforts in this direction. We should be concerned with interpreting the relationship of media services to educational achievement. As a first step it seems obvious that we must be more articulate in defining goals or objectives, with rationale for these when needed.

In Florida in the past we have identified as a major goal the establishment of "conditions of accountability" for school library media programs. Such conditions have included one librarian or media specialist for each 500 children and other quantitative standards in relations to size of resource collection, space and facilities, staffing and funds to support the program. We have assumed that everyone knows that given optimum conditions, there will be great educational achievement. We have then "opened the store" or "played it by ear", attempting to involve teachers and students in planning and using media services and working with those who will work with us.

This is a new day. We are now expected to be accountable for what happens to students because of expenditures for educational programming. Without question, school library media specialists must give leadership in the education professions in defining goals and objectives (for media programs) that can be measured.

Reference to literature is useful here. In the Evaluative Criteria used in studying middleschool - junior high and secondary school programs, there is much emphasis on goal making. Schools are encouraged to develop goals, to implement them, to evaluate achievement, and to plan on this basis for better implementation or for restatement of goals. It is significant that the Evaluative Criteria suggests no specific goals but requires custom-built goals for each school, designed by those who work in that school.

In the 1960 AASL Standards for School Library Programs (ALA, 1960), there are identified three major goals, and note that these are phrased as school goals of importance to all citizens:

1) That our schools have the resources for teaching and learning.
2) That all schools have functional programs of library service.
3) That we work toward excellence in providing school libraries for youth.

These sound all-encompassing and vague in this time when we have been indoctrinated in the Mager theories, requiring objectives stated in performance terms and measurable.

The 1969 Standards for School Library Programs do identify 9 specific objectives, and it is significant that these are quoted directly from the 1945 Standards, School Libraries for Today and Tomorrow (ALA, 1945). There is careful explanation that while these general objectives are "common to all schools", the primary objective of every school library is that of "contributing to the achievement of the objectives formulated by the school, of which it is an integral part."

The more specific objectives identified include:[1]

1. Participate effectively in the school program as it strives to meet the needs of pupils, teachers, parents, and other community members.
2. Provide boys and girls with the library materials and services most appropriate and most meaningful in their development as individuals.
3. Stimulate and guide pupils in all phases of their reading so that they may find increasing enjoyment and satisfaction and may grow in critical judgment and appreciation.
4. Provide an opportunity through library experiences for boys and girls to develop helpful interests, to make satisfactory personal adjustments, and to acquire desirable social attitudes.
5. Help children and young people to become skillful and discriminating users of libraries and of printed and audio-visual materials.
6. Introduce pupils to community libraries as early as possible and co-operate with those libraries in their efforts to encourage continuing education and cultural growth.
7. Work with teachers in the selection and use of all types of library materials which contribute to the teaching program.
8. Participate with teachers and administrators in programs for continuing professional and cultural growth of the school staff.
9. Co-operate with other librarians and community leaders in planning and developing an over-all library for the community or area.

In Standards for School Media Programs (ALA and NEA), published in 1969, one finds no direct statement of goals or objectives. The

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[1]American Association of School Librarians, Standards for School Library Programs. American Library Association, 1960, pp. 8-9.

purpose of the publication, "to present standards that will best aid the schools in implementing their educational goals and instructional programs", implies that goals or objectives of school library media program with achievement of general educational goals and objectives is reasonable - until that time when school media specialists are challenged to justify their programs in an age of accountability. That time is now!

Where teachers are organized and engaged in negotiations, they often discuss the "conditions of accountability", such as ratio of students to teachers, hours and days involved, access to materials of quality, access to services and specialists' assistance. School media specialists might well consider the special "conditions of accountability" desirable for their specialization.

Educational goals in a particular school system surely affect the kind of required school media services: the nature of the collection (formats, quality and quantity; determination of who should be involved in building the collection; services(advisory, instructional, technical, promotional, administrative); personnel (professional and supportive). We are a long way in Florida from having proper "conditions of accountability" for media specialists; this generalization is strongly supported by Elizabeth Mann's recent study of school library media services in Florida's schools.

We should recognize our need to achieve more general understanding of the purposes and potential of school media services, involving the general public, the education professions, the Department of Education, local school board members, and young people who are to be served. Better understanding must be translated into commitment and an action program that ensures funds as well as involvement of media specialists in educational planning.

Inportant for us is the recognition that we must become expert in clarification and statement of goals, objectives, and measurement of achievement. We can surely look at the educational goals and objectives now identified for Florida schools, and from them derive appropriate objectives for our part of the program. We would then be concerned with student development and with organizational goals. We would be able to show more specifically the requirements for our programs and the significance of them in educational achievement.

Cecil Golden in speaking to this group has referred to the "six year planning cycle" and discussed the value of having priorities and long-range planning, with phasing. We need a six-year plan, developed in each district and with some common elements that would be recognized

as statewide goals and objectives. Involvement in this type of planning may be the greatest opportunity we have had in Florida to work realistically for better school media services for the young people of Florida.

Let's try it! We may like it!

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COMPUTER INNOVATIONS FOR SCHOOL LIBRARIANSHIP

The analysis of computers for school librarianship will fall into four domains. The first concerns the general nature of computers, and why all citizens, and especially librarians, should be keenly interested in them. The second area of interest will cover kinds of activities pursued in using the computer as a training or instructional aid--a support to one's career task. Third will be a review of the work that has transpired in the area of computer-assisted instruction and natural language processing. And lastly, the operational use of informational retrieval systems, especially for training purposes will be described.

The computer is not just a piece of equipment. It is really an abstract symbol manipulator. In many ways its reasoning is an extension of man's intellect. The computer has no more capability than man's intellect, but has at least his ability to systematically represent his thoughts. Consequently, being a symbol manipulator, it is quite capable of processing information and thus is able to fulfill the archival, searching, and retrieval functions that transpire in a library. In order to fulfill these functions the computer must somehow get the information into its system. To do this, it has to have a good organizational scheme to keep track of the information. The computer must occasionally move the information around, and perform such tasks as storing, comparing, selecting, accepting, and merging, and then retrieving the information on a timely basis.

Computers receive their greatest criticism when they fail to perform up to the expectations people have for them. The important point is the process of persuading the system, from an abstract point of view, to fulfill these expectations. This is really the way people are now thinking and working with computers. They think of them being very much as automatons. As automatons, computers go about their tasks in a very systematic way; but does that systematic kind of behavior match the systematic behavior of the computer's clients? This is a point to be considered when thinking of computers as automatons plus potential aids to librarianship.

The other topic in the general development of computers is to be very aware that computers are still in their infancy from an economic point of view. The most dramatic area of improvement in computer technology in the last three years has been the development of the terminal, which now can be placed in the library, the office, or even the home. The terminal has the ability to retrieve relevant information, and the potential value of the terminal to a housewife can be illustrated by three examples: instant retrieval of the current price of a steak, the location of the best alternatives in terms of cleaning, and the stores offering current bargains.

In commercial advertising, all of the major newspapers, like The New York Times and The Los Angeles Times have a task force at work right now in anticipation that perhaps in this decade or the next, newspapers will no longer be put on paper print; that is, other formats will be used. The most likely format that people now forsee is miniaturized film which will not be read but will be placed in a computer terminal which will read the newspaper, permitting the reader to go through the newspapers with various kinds of aids to find certain subject matter without having to start with page one.

Terminal equipment is getting cheaper and should continue to lower in price. Within a decade the price will be at the same level as television sets. The price of a computer three years ago was $3,000 and now is down to $2,000. With this rate of decline there is no forseeable reason why the price will not drop to about $150 to $200.

A library should have a good system of knowing where its information is and how to get it out to people. The development of this information system will require techniques for massive storage of information and this is really progressing. This development is to the point of using laser techniques for writing on film. All this is possible within this decade. However, this development will have to prove itself in a cost effective market. This is what has always shaped the computer industry; that is, what people are willing to buy in terms of productivity. Will the cost warrant the effectiveness gained; will service be improved? A common strategy should be followed when determining the productivity of a computer. It is the ability of the computer to perform multiple functions. Beside being an extremely efficient informational storage and retrieval system, this same device can be programmed to teach people, and has in fact been doing so for more than a decade. Let us turn to that topic now.

Using computers for teaching purposes is referred to as computer-assisted instruction. Computer instruction involves the presentation of information over some kind of audio-visual terminal device with a person reading and listening to it, then answering some questions. The answers are then analyzed, and if incorrect, hints are given or the questions restructured with a new or simplified approach. How the program is organized is typically referred to as an instructional strategy. In other words, the program is strategized for preparing the student to meet educational goals.

A good example of this type programming in the field of library science was developed by Drucilla Motley. The research involved using multimedia devices while teaching the concepts of indexing. Indexing involves much tedious referencing and cross referencing. As a person proceeds through the process, both positive and negative

feedback are encountered. What was done was to give examples using these multimedia devices progressing from easy to hard examples. As the student became more efficient at indexing the problems became harder and harder. Soon Ms. Motley was able to accomplish with the use of the computer the same tasks as that of an FSU professor. She was as competent in terms of having automated a program like this as a good knowledgeable professor.

Computer-assisted instruction, as far as can be ascertained, usually is 10% to 12% better as a teacher than the normal instructor/teacher. The less time the instructor has spent to update his material or really work at the job of instruction, the better the computer looks. In the case of the students at the lower end of the ability spectrum, the computer consistently scores better because the computer is able to break the problems up into smaller steps, allow the students to progress at their own rate, and is able to produce tremendous amounts of feedback (which is precisely what somebody needs, when he is having difficulty learning). From an institutional point of view, the computer is able to progress through a course with a saving of 25% in time.

Whether this savings in time is beneficial is conjectural, but it could be very important in a library. For example, if a training program was to be instituted in a library with a large staff, then the savings in time might be critical in terms of paying for that time. It would be especially critical for industrial firms or military groups where the trainee is paid while training. This becomes critical because if 25% of the training time is saved, then 25% of the salary is saved for productive use.

Another area of computer development is referred to as natural language processing. In 1965 a group of people at MIT started working on what was called the "Mad-Eliza's Program." The program involved clinical psychology and the use of clinical techniques. It entails being very reflective with a patient. The patient says "I am upset" and then is asked "Why are you upset?" The patient says "So and so is bugging me" and then is asked "Why is so and so bugging you?" In other words, what ever the patient says, the statement is reflected back to him. And so, the MIT personnel worked diligently for two or three years and had computers do the dialogue. About 95% of the time the computer recognized and handled the input and was able to give a sensible question back. The whole program has been successful and is in use at a mental hospital today.

The above natural language example is only a small part of dialogues. Much dialogue deals with asking people for information. This is a more difficult problem, but not unsolvable. People are working very diligently in this area, and have progressed to the use of conceptual semantic models. In other words, if a dialogue system were incorpor-

ated into a library, then an information retrieval system would be employed using a natural language model. This would allow a person to sit at a terminal and ask the computer questions about anything in the library. The prerequisite for the person to obtain this information is the formation of conceptual models which could be geographic in location and nature. For example, a number of stacks of books have been organized into a particular topic scheme. These schemes have an interrelationship with each other, and these interrelationships have to be evolved continually. What the computer does is to take input and look for major relationships. If it defines one, then it will start looking for the next series of interrelationships within the level around it. The analysis routine literally goes after this input and continually defines and refines it. These complex problem domains are segmented hierarchically so that processing can occur.

The important fact about this dialogue development is the seeming amount of progress being made in the area. A dozen different dialogue schemes are running that are extremely useful in instructional terms. To give an idea of the flavor of how dialogue schemes are employed, one is running on the FSU campus as a part of a religion course. The reason for the use in this particular course was to fulfill one of the major objectives of the instructor, which involved precise thought on the part of the students. The professor's problem was that he did not have enough time to personally talk to 200 students to determine if this precision of thought was being accomplished, or to be able to correct some of the students' misconceptions. So dialogues were developed that were tied to a certain kind of reading, testing the ability of students to ask or answer questions in a sophisticated and extremely precise sort of way. The dialogue was organized around a single concept, and the student was tracked and led to finer and finer detail. Thus, the student had to be more precise. It is easier to be precise than to be erroneous. This was the strategy used in this course and it has proved very successful. The course is available every quarter and the students continue to find it valuable.

The success of this system is based on an informal kind of validation. It is referred to as activity validation; that is, the student voluntarily takes the computer-assisted instruction as a part of the course. College students volunteer to avail themselves of this resource; if they did not come, it would indicate that the resource is not very good. The thinking involved in the course is to not make the computer resource a requirement, but to think of it as an instructional aid that is available to students. In fact, when a good program has been developed, as has been done in a physics, chemistry, mathematics, and this religion course, and a number of other courses, about 75% to 80% of the students will use it. Natural language processing is moving ahead. The state-of-the-art is progressing.

Natural language processing will likely accomplish two goals. It may relieve the librarian of critical manpower problems; that is, an insufficient number of people answering questions and helping people. At the same time, natural language processing may allow for an expansion of inquiries on the part of the library clientele. The library users would be allowed to ask more questions, and thus avail themselves of much more information. This may be another example of a new format. Instead of reading articles, the use of dialoques could be employed. Some people do better in a dialoque situation than in a reading situation. This may be a much more natural way of obtaining the enlightenment and information that the person wants from a library.

The next point to be discussed is the present status of information retrieval systems. In the area of law enforcement, a retrieval system is close to perfection that can obtain the crime records on a given individual in a matter of seconds. From an instructional point of view, there is special interest in trying to use a retrieval system in the abstracting process. Most retrieval systems are based on descriptors. The computer is just a machine for understanding this logic of descriptors. Therefore, it is just a matter of trying to teach a human being enough about this logic so that the appropriate descriptors are linked in a logical manner in order to obtain a retrieval list.

Students do have tremendous variations in the learning process. There is a tremendous amount of information and learning required to use a simple system like a library. The evidence to date indicates that information retrieval is quite useful and well worth further investigation in this utilization process. More concretely, the GYPSY system, which is an extremely flexible word-oriented scheme, has been developed at the University of Oklahoma. Any number of major abstracts, like psychological and sociological abstracts, can be retrieved from the GYPSY system. The university is happy to support this system and is making much progress in terms of utilization. A survey of their utilization records for the past year shows some 50,000 retrievals. This is good for a noncommercial computer even though there has been a lot of criticism for this particular form. Retrieval systems are going to continue in this direction for one very definite reason--a person gets results faster and he knows whether he's getting the information that he wants. This is the client's problem.

There are other parts of retrieval work that deal with the fact that languages now used in computers are much faster and more abstractly oriented to do retrieval work. This has been one of the major problems in the past. The storage organization schemes, the equipment, and the languages were very primitive in nature and are now becoming more modernized, and therefore, are working faster. The critical point is the fact that computers are working faster.

Informational retrieval is really "the name of the name." The information has to be sent out in a hurry and in a reasonable way. The other point is that this information should be able to be shared. Thus, if the chemical abstracts of the University of Georgia are available at one source, then there is no reason why another public institution or library should not have access to this information. Access could be at least available over a telephone line or available on magnetic tapes. This is very much a driving force in computer development. It is literally to try to bring about sufficient compatabilities from one location to another and to be able to use them in an effective way.

The foregoing discussion did not include other aspects of computer technology. This includes learning simulations on computers and how these simulations are used, or the work being done in management science or management resources allocation. These areas are too far afield in terms of immediate application, but would still be of interest.

Computers have really invaded our work world. At the same time, computers are invading the private lives of individuals dramatically. The question is the degree to which the individual will want to participate and adapt himself to this fact. Do individuals want to be knowledgeable about computers and accept this challenge? Computers are getting more complex and abstract. They are getting more human-like. Today it is not nearly such a jolt to become involved with a computer. There exist all kinds of easy techniques making the computer seem like one's own typewriter. This makes it much more natural, and though the challenges are more complex, it is much easier to get started now. Thus, librarians need to come join this game even more.

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HOW TO DEVELOP EDUCATIONAL MODELS

The purpose of this paper is to acquaint you with the basic principles of model-building and to provide you with certain basic knowledge which can help you in developing a model for accountability in educational media programs. In doing this I shall attempt to help you formulate the concept "model," I will give you several examples of models, and I shall explain some alternative approaches to the task of model-building. In addition, we shall touch upon "accountability" but this concept will be dealt with more fully in other parts of your program.

Model building has recently become a popular activity in education, and for good reasons. When one is confronted by a problem which is so complex and abstract that its solution isn't readily apparent, the availability of a model of the problem setting can greatly facilitate problem solving efforts.

What is a model?

The term "model" can mean different things. We all know that a model airplane is a miniature of the real airplane; and if it's a good model, the components of the model have a one-to-one relationship with the real airplane. The real airplane has a wing on each side and the model will have a wing on each side; the real airplane has a certain type of landing gear and the model will have the same type of landing gear. In addition, the components of the model should operate in the same way as those of the real airplane. This is one kind of model and if one were to create a general definition from that example, it wouldn't be too different from the definition we'll be using here.

Another use of the term "model" is as a substitute for the term "theory." We might say that we have a theory about the way some particular thing works. For example, there are theories about the way the brain works and theories about the way people learn. If our theory is fairly loose, highly speculative, and not too well thought out, we probably would not use the term "theory," because "theory" implies lawful relationships. But, if it's a quickly formed idea about what components are involved and how they relate to each other we would use the term "model." Therefore, the term "model" is often used as a synonym for "theory" where the theory is relatively undeveloped or highly speculative.

One may create a speculative model, then test it to determine its accuracy and utility. If one creates a model based on speculation and eventually finds that in fact it does represent reality well, and is useful, then he might begin calling it a theory where the term "theory" suggests that it's based on lawful relationships.

Another way of determining the meaning of the term "model" would be to consult a dictionary. Webster's Unabridged Dictionary includes a definition of model that fits our purpose. (It's their fourteenth definition of model.) "A model is a description used to help visualize, in a simplified way, something that cannot be directly observed." Earlier I mentioned model airplanes. If we were teaching aviation subjects in a flying school, we could bring models of airplanes into the classroom for illustration, whereas we couldn't bring in a real airplane. As another illustration of this quality let's consider a model of the FSU campus. As you stand here you can't see the whole campus, therefore it's difficult to visualize where the Library building lies in relation to other buildings. However, a model can illustrate the spatial relationships among the different buildings, roadways, and walkways on the campus.

Organizational charts, although differing in appearance from the models mentioned above, can be considered models of organizational structure. The whole organizational structure cannot be directly observed, but a model can be developed to illustrate it. It appears that Webster's definition is general enough to apply in this, and in most of the situations where one might consider using models.

The principle attributes of the kinds of models you're interested in are that they show the separate components of the system and that they show the relationships among these components. If you're to build a model for accountability in media programs, it is important that it include these attributes in order to help in making the relatively abstract components and their interrelationships concrete. Once a model is structured it can be analyzed, component by component, relationship by relationship, before being tried in actual practice. A model can be manipulated much easier than real people and real relationships.

The first example, shown in Figure 1, is a very simple model of the instructional process. It is used here to illustrate the idea that models need not be complex. The model includes three major components and the sequence in which they take place.

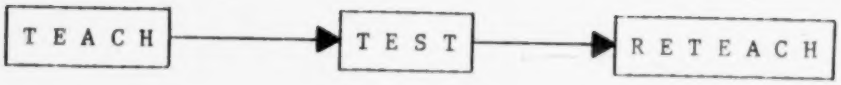


Figure 1. A Simple Model of the Instructional Process

A slightly more complex model of the instructional process is shown in Figure 2. In addition, an expansion of the model is shown in Table 1 where additional detail for the first component of the model is provided.

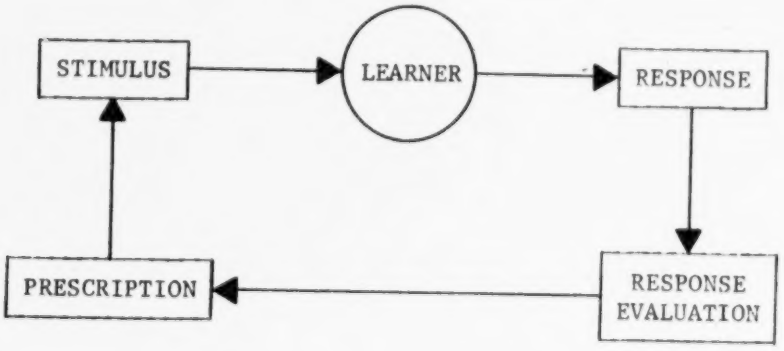


Figure 2. A More Complex Model of the Instructional Process

TABLE 1

A Part of a Generalized Model
Of the Instructional Process
(Rhode, et al, 1970)

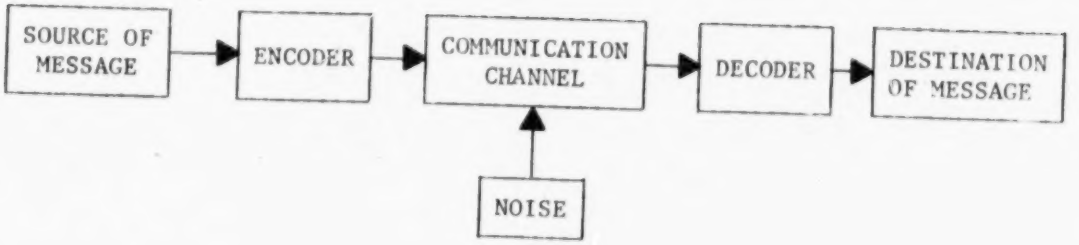
Category	Dimension	Attributes
STIMULUS	Encoding Form	Verbal Pictorial Symbolic Environmental
	Duration	Transient Persistent

As you can see, specific components of a process and their interrelationships can be illustrated at different levels of detail by models such as these.

How do you build a model?

One of the best methods of model building is to borrow someone else's model. Although this may sound dishonest it is actually very sound. For example, someone studying the instructional process might borrow Shannon's model of the communication process (Shannon, 1949), Figure 3. The source of the message might be the textbook or reference materials which the teacher either reads or has read. The teacher encodes it in some form, either written or oral, and sends it to the students through a communication channel. The communication channel might be a lecture, a slide tape, video tape, mimeographed handout, or some other media form. The student receives the message and decodes it. The final destination of the message might be the eventual student use of the material.

(Shannon's Model)



(Adapted)

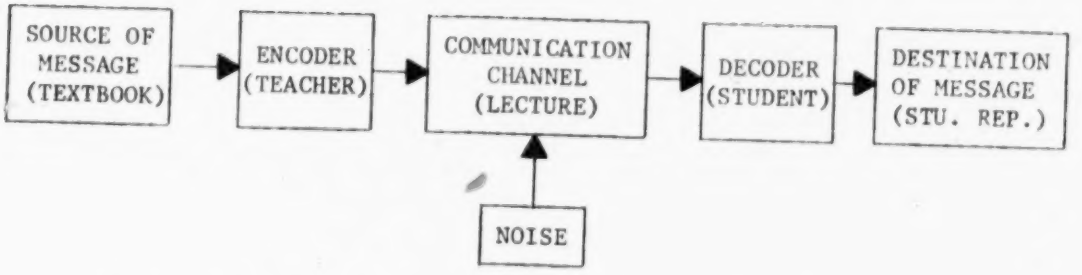


Figure 3. Original and Adapted Models of the Communication Process

Another example of "model borrowing" is the researcher who used an epidemiological model in studying the spreading of rumors. He hypothesized that rumors spread in the same way that disease germs spread, borrowing that model to his advantage.

You also might wish to borrow other models, or parts thereof, in developing your model of accountability. There are several ways that a media specialist might be accountable. If you consider yourselves distributors of media devices, then your task is that of keeping an inventory and making the inventory available on a service basis. One might find a model in industry that could be adapted to your special needs.

If you consider yourselves instructional specialists then you have tasks which involve instructional theory. You must know the best way to provide learning stimuli to students. You have to be expert in media utilization; you have to know when audio tapes will be most effective, when live television will be

suitable, where the overhead projector will work best, etc. You would have an in-service training component for teaching media utilization to teachers. For the training component you could probably borrow the instructional model as shown, letting that model work in your in-service training for teachers.

Another approach which can be taken in building a model is to begin by describing your activities as clearly as possible either in terms of "what is" or "what ought to be." You might use a systems approach in doing this.

A model of the systems approach was developed for the City Managers Association (1968). The essential steps of their model are as follows:

1. State the real need you are trying to satisfy.

2. Define the educational objectives which will contribute to satisfying the real need.

3. Define those real world limiting constraints which any proposed system must satisfy.

4. Generate many different alternative systems.

5. Select the best alternative(s) by careful analysis.

6. Implement the selected alternative(s) for testing.

7. Perform a thorough evaluation of the experimental system.

8. Based on experimental and real world results, feedback the required modifications and continue this cycle until the objectives have been attained.

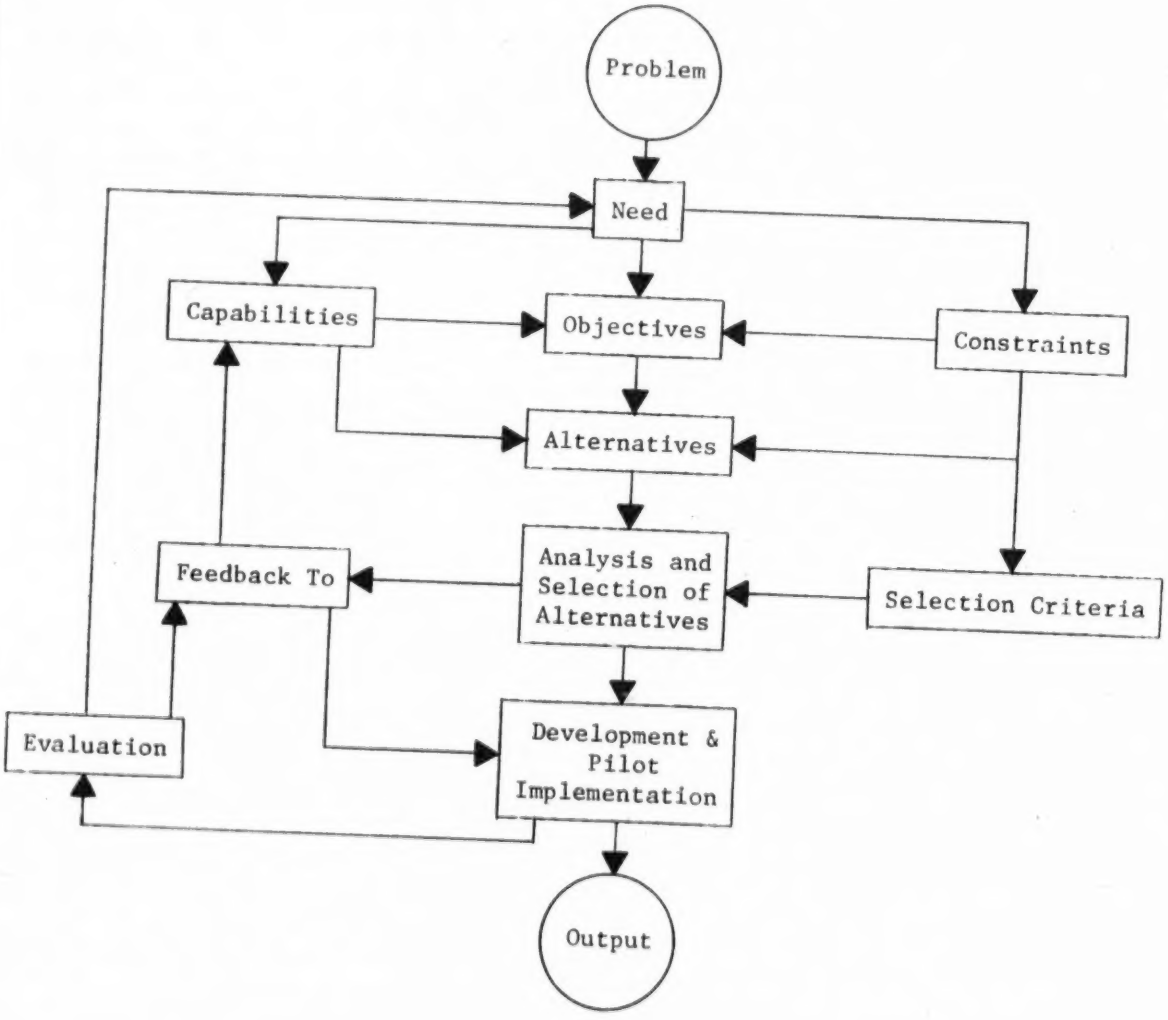


Figure 4. Abbreviated Model of the Systems Approach

In using this model you might first define the problem, need, and objectives by asking yourself the question, "At what points do I provide a useful service: Is it when the overhead projector is delivered to the classroom? Is it when the student checks out a book from the library? Is it when the student works

independently in a learning resource center?" You might then ask yourself, "What are the alternative ways of providing the service or the product?" Then you would proceed to describe the capabilities required in order to provide the service. After structuring the complete list of components you would refine the list, flow chart it, and add necessary detail.

Once all the components were in you would describe the relationships among the components, eventually completing a model which you would circulate for critique by your colleagues. This is probably the most feasible approach that you could take in building your model.

What is accountability?

Marvin Alkin included the following definition of "accountability" in a report from the Center for the Study of Evaluation (1972). "Accountability is a negotiated relationship in which the participants agree in advance to accept specified rewards and costs on the basis of evaluation findings as to the attainment of specified ends." Accountability, of course, has received the most attention in the performance contracting setting where commercial firms are employed to provide services--for example, instruction. Some educators advocate the approach because the firms can be held accountable. For example, if the students don't learn to read, the firm isn't paid. Accountability in education was first made concrete in such a business relationship.

Alkin's definition can also be applied to the typical non-commercial school situation. In fact, there is a school in Arizona in which the public school teachers are contracting for parts of the instructional program with the school board, and receive salary increments according to student gains, but this practice isn't widespread.

Summary

This presentation has included definitions of "model" and of "accountability." Procedures for building models have been described and examples of models given. The next step is one in which you develop your own "model for accountability in media programs, " using these basic definitions and procedures.

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WHY ACCOUNTABILITY

I just talked with Dean Goldstein back there to find out what a Dean does. You have given me an assignment "Why Accountability" but it is a lot different from "What is it". I took a sort of different point of view than I have over the years at trying to see why this movement is spreading the way it is and, really more importantly, what it might mean if it is properly shaped.

One of the things about this new movement in education, is that it shows every sign of continuing because its momentum is not internal, it's external. It has already gone through the stage of being education's "in" word and people being tired of it and people wanting something else but it won't disappear, it can't go away. This happens to represent something that is happening to us as a Nation and some people are upset about that--we tire of things very quickly.

We were mentioning before we started that the media (and you are all media specialists I understand) kind of musses things up including ideas. But certain ideas won't go away and that may be a good place to begin about "Why Accountability".

Accountability can be the application of effective caring to educational organizations in order to achieve target performances. I would like to introduce to you what I call educational problems and parities and that may be a strange term to many of you. A complimentarity is a very important concept it seems to me in our time. I first came on this notion in 1943 when I was in the U. S. Army as an engineer on the atom bomb project. Before I became a Dean of Education or even a schoolteacher, I was a mechanical engineer and had the occasion to work with some of the most eminent scientists of the world. You know we have had more scientists now than at any other time in the history of civiliztion. I think back on those days because I feel good now in education and in the social sciences knowing that people in the so called hard sciences have their problems. It is a source of comfort to know that their world is not quite as ordered and that on the cutting edge of science they have reached a metaphysics. This makes me feel very good and should make you feel very good perhaps. But in those days, science was pretty heavy stuff. After all, in my own presence we have achieved the temperature of the sun on earth for a moment when we vaporized a 100 foot tower of steel. So I remember hearing lectures by Oppenheimer and others and he has since written some of this material which should be more widely known. The concept of complimentarity

in physics is something like this--that two notions may be in conflict and yet each must be used to explain a phenomonon. For example: light is a wave phenomonon and light is also a straight line or quantum phenomonon. Now you must use both simultaneously to explain light and yet they are antagonistic.

Now when I went to high school we didn't allow that. My high school teacher said that if a single fact contradicted a single theory you threw the theory out. Those simple and wonderful days are gone. Now the physicists talk about complimentarity and we have complimentarity in education. Think for a moment about individual differences. We know, however, that everybody is exactly the same as everybody.

Now if you say which is it, the answer is both--simultaneously. As you attend to only one part of the complimentarity and not to another, you do harm to the phenomenon that you are trying to understand or deal with. You see people are all the same-we have the same needs: to be wanted, to be successful, to be loved and all the rest. But we are all different--we are all the same. We simply have not trained people professionally to deal with complimentarity and our world is a complimentarity full of things that don't go together. I suppose one can look forward to the legitimatization of conflict--polarization to making sense out of divergents. This comes very hard.

I bring this up because I think what I am calling discipline caring or humanistic accountability, is a complimentarity that humanism by itself is counter-productive and unsupportative. That each has its place, that neither can be avoided, although it is easier to avoid the humanistic in our time. But we are antagonistic. So I think we have been fighting the wrong battle--so keep this in mind in the answer of "Why Accountability".

I think because we have approached a wall now when we need discipline caring. I shall try to explain that in a moment, or effective caring if you don't like the word discipline.

Effective caring has three aspects. An effective caring I think is the marriage of humanism and accountability. First, there is the personal commitment to client growth and welfare. People who are interested in accountability, in a humanistic sense, ultimately fall back on the personal commitment of those that would be accountable, the mind set.

It turns out that in education we have a rather interesting mind

set. Mind set is an old term in psychology and very apropos. This part I don't think you will like. It may make you very uncomfortable but so be it. A hundred years ago we had a mind set toward mental illness before we called it mental illness. We thought that people who exhibited certain behaviors were possessed of demons and the proper treatment for someone possessed of demons was to put them into a snake pit. In our time, we think of that same phenomenon as being mental illness and the proper treatment for this illness is in the hospital--not a snake pit. I think you all know the fact that what you perceive is striking. Do you know about the pygmalion studies? I recently saw some that had been done internationally. The evidence is overwhelming that the perception of the teacher is probably the principal being of whether the children succeed or not.

Awesome. So that mind set or personal commitment is awfully important. But it turns out that as the teaching profession basically has the mind set which would screen and sort that our mind set is not to see that all children achieve. Quite the reverse. We are very uncomfortable with that notion. I wrote a book called "Every Kid a Winner". That bothers most teachers. They come sometimes trembling and they say what about standards? The very idea that every youngster might succeed is very threatening. Yet the system is geared to screening and sorting so only a few can go on. The symbol of American Education is a bell-shaped curve. There is nothing wrong with that--that's the way it is. So if you are going to have effective caring, which is what I think the times demand, then we need a change in the mind-set. The sort of thing that Cal Taylor at the University of Utah talks about. He said we need a profession of talent developers. The job of a teacher is a developed talent. Although there are many talents and everyone can be a winner if one allows the school system to nuture many talents--not just the verbal or so called intellectual.

Secondly, the notion of professional responsibility, what some people call professional accountability, is coming in. An interesting notion, it goes something like this--that we can expect educators, teachers, and administrators to know the state of the art and to use that which research and development has established: that the patient may die and that it is arrogant to talk about making me accountable for your personal growth. To hold me accountable for knowing good practice and using it and for looking for by use of malpractice. The notion is interesting. If there exists good practice, the Florida Research and Development Program, for example, should uncover all the practices which we are trying to look at, and if these work, if they are humane, have all the tests you want--much like medicine.

My father was a medical doctor and in my young days the treatments, the good practice, the standard practice, in all medical offices for treating sore throats involved swabbing the throat, and all sorts of things. Now that practice would be poor practice or maybe even malpractice. It turns out that the stuff they used to swab your throat actually destroyed tissue. Now it didn't kill you because it didn't stay there long enough and you felt better because you had no pain but medicine doesn't use that as good practice now. Yet I dare say in education we have no concept of malpractice or poor practice and until we can define good practice, bad practice and malpractice we can't be a profession because in this anything goes, anything you want to say. We are beginning. I think you know we have a National Institute of Education bill just signed in Florida and it is number one in the whole United States--the state effort is way ahead of the United States Government which intrigues me--I can prove that statement. I have been back to speak to the U. S. Office people about what Florida is doing which I find exciting.

This concept then of professional responsibility, of holding us accountable for knowing the state of the art and for using it but not for individual learning makes sense, particularly in line with the third aspect which is system accountability.

This may be the most impressive. What we are talking about is a system accountability. In medicine we have begun to achieve this. Every five or ten years the medical system attempts to conquer its most difficult problems. Last year eliminating polio, hopefully, next year eliminating cancer.

There is a concerted effort on the part of that profession step by step to conquer its most difficult problems, to meet its greatest challenges. We have no counter-part in education. We are the ones who shun our most difficult problems. In this sense, we have a moral base as the Bible says "if we build a house on sand, you are not going to have a firm foundation". We are the ones who want to get rid of our problems. We are so proud as teachers. I used to do this, to say, "Get rid of that kid, out, give me the kid who wants to learn", and that's precisely the youngster that does not need us. The one who needs us the most is the powerless, the disadvantaged. He needs us. He needs a librarian with access to media, somebody to stimulate him and to lead him along.

I think that there is weakness at the very base of education and it's changing--I am pleased to say it is changing. The reason it is changing is that we don't have system accountability. We don't have the organization, the resources, the R & D funds, the

University working directly with the school system. An example of this is 4H Clubs and Universities working directly with the farmers. American agriculture is the envy of the world and so can American education be when the system becomes accountable. It is the system's job to produce learning and if learning doesn't occur the system needs to be changed--the training methods-the materials the research base-the management system, until that system produces what it must produce. What it must produce, of course, is what the child must have to live in a changing world. So if you put these three things together, personal commitment, professional responsibility, and system accountability you have a pretty good definition of what accountability can be. But, we still haven't answered why accountability.

Let me try to get into why this particular form is appropriate in our time and why that particular kind of accountability is spreading. Notice the terms "discipline caring." Let me deal with caring first.

I get sort of interested. I am frequently associated with accountability as the cold scientific technological term--going to get everything we can out of you. I have been described in literature as a friendly fascist. I am delighted to be a friendly one. Accountability is described as manipulative, centralized, all the bad things of the technological world. Humanism, on the other hand, is described as joyful, open, spontaneous and all the good things of life. So on the one hand there is the cold-hard world, tough, find out what you are doing and haul you up before the public. On the other hand there is the informal, joyful humanism, and if you are going to be one side or the other I would rather be on the joyous, let it all hang out school.

So, I guess, in self-defense, I tried to look at this concept to see whether in fact accountability and humanism are really that stark and I have concluded that they are, but that they are both necessary in this and complimentary.

Let me begin to build that for you. First of all I think that the essence of humanism is caring. Caring is the core of humanism, the bedrock upon which a humane and worthwhile society is built. In our society, caring must take the form of concern for the disadvantaged, the powerless, the widow, the orphan. It has to take that form because if it did not we would simply not be a humane society. Every society cares for the well-born and the powerful. You don't have to go to school to know on which side your bread is buttered but your particular society at least talks about it, at least to a great extent honors the notion of caring for those who need the most help. This is the humane at its best. It doesn't mean you choose up sides, therefore, rule out everybody else. It just takes that particular form.

In the past, caring could be done on a person-to-person basis. Now it must be done through institutions. We cannot care one for another, person-to-person, not even in Tallahassee. We are a complex big set of organizations. I discovered that 80 million of us work in our great country and 74 million of that 80 million work for organizations. We are not the Nation of Jefferson's little farmers--we are a Nation of people who work in managed organizations and if that management is not good then part of our humanity will be changed. We have discipline caring by means of paying money for people's salary in places that are set up to care for us. We have health care, even our prison system is supposed to care for rehabilitation. Our welfare system is to care for those who are poor and now our educational system is to care for those who normally didn't go through school.

Ladies and Gentlemen, none of them cares very well. They are big, ungainly, and complex, sometimes incompetent, organizations, and it is nobody's fault. We haven't learned how to deal with bigness and complexity. Our training systems are not geared to training people to exist in these kinds of environments but we are beginning to learn and the test of our creativeness as a society is to achieve a discipline caring. That is the real legacy of accountability, this notion of seeing to it that those institutions that are supposed to care for us in fact do, without making those institutions themselves dictatorships.

How should we do this? Well, organizations after all are merely instruments for collecting and dispersing the initiative and influence of persons paid to carry out the making of goods and delivery of services. We depend on these for our very existence. Nothing good or bad comes out of an organization that has not been put into it. If organizations are to serve us better, then they must be better served and cared for by those who have any contact with them.

No matter how small--no matter how indirect. Each organization is a sub-system of other systems. One of the ways to start dealing with this notion is to talk about system thinking. This is an interesting idea. I am trying to set up for you humanism on the one hand and accountability on the other. To point out that they have an antagonistic relationship but to try to build some bridge to house them and the bridge I am calling discipline caring. Trying to point out that if we really want to care for people, for their full flowering, then we have to care for the institutions because we discharge our responsibilities through organization and we have to then start thinking about management

There is one expression that changes everything in our time from what it was in the past. That expression is "Everything effects Everything". We now know we are living in space ship earth and we know that what we do in Florida on the farms may give some penguins in the South Pole a bellyache. We are not used to this kind of thinking. We are not used to saying if I do this, that it is going to end up there. But if I put a road through this part of town it is going to cause that to happen and therefore these people will lose their jobs. We don't know how to deal with those instructions. We have no racial memories of these things. We have to become system thinkers. When we do, in the whole we will look at reality and it can be quite humane but it is different.

One way to look at it though, is to see that each organization is a sub-system, sub-part of another system. You will find these same themes coming out of many areas. Each part must have integrity, reliability, and concern for the whole. In practical terms, each person must have the requisite competence and confidence to do his job. Each material must be adequate for the demands placed upon it. Each method must be grounded in the research that establishes its validity to accomplish this purpose.

The whole must be orchestrated to produce in harmony the objectives which make up its goals. Strong able persons can achieve leadership even in very large organizations. We will observe significant and even measurable increases in the quality of its serving. In an educational system instructional materials should not be acquired unless those materials have been field tested. People should not be hired on the basis of their credentials unless that credential indicates that they can perform. As a fact, I am convinced that teaching itself is a performing art. I find that a very reassuring notion that after all the artist is defined by his audience. This is kind of sacred transaction between the artist and his audience. Now he could go and sulk if the audience doesn't respond to him. Over and over again, he's not any artist. If nobody learns we can say that no one has been teaching. Curious, we are talking about a performing art, I have often thought that the curriculum I would establish if I had the power would involve the teacher's having to put on a play and we would measure his or her effect by the applause of the audience. If the teacher, with all the help in the world, in a one act play did not get at least 30 seconds of applause, then this might tell us something. I even thought that the teacher might throw a pot and the only test would be if it would hold water. I am kidding, of course, but it may very well be that the teacher's performance would involve management, art, communication for sure, some aspects of a lawyer. It may be that

as we look for professional responsibility we will talk about authority by competence not by an investiture.

This is an interesting point. I was thinking the other day, when you become an officer, even to this day, you also become a gentleman and when the President of Florida State issues a degree he says "by the authority vested in me by the regents of the State of Florida I give you this" beautiful example of authority by investiture. "By the King" I give you this certificate and now you go forth and you may practice. I don't care what degree you have, what do you do? No society has ever proven authority by investiture. When I was a young lad, if I got a bad mark in school, my parents would not challenge the school--they challenged me. If I got beat up on by the teacher, they beat up on me twice. The teacher could do no wrong, the State can do no wrong--that has changed.

We have molds for all sorts of reasons. Why accountability? Because we have moved from process to product. From certificate to results. Where this will take us I do not know but it may suggest some good things as well as those that cause us a lack of sleep. Why accountability then. To build responsibility and organizations so that the organization achieves what it sets out to achieve. So that it uses the best that is known to work so that each client is the recipient of all that he should properly receive. Why accountability? We depend utterly on organizations for our survival. Instead of being stronger people, we become more dependent, utterly dependent. We are so totally interrelated we cannot survive one without the other. We could a hundred years ago. We cannot now.

When a heat wave comes we all turn on our air conditioners and the power lines fail. Somebody hijacks an airplane and the whole airline system comes to a halt. We are absolutely defenseless. We are utterly dependent upon each other in our organizations. Those organizations must function.

Why accountability? Because we are now dependent on organized rights but it still has not penetrated. We still have this vision of going along. So we have a whole baggage of bureaucratic organizations that don't know how to care. But we are learning. One thing we are learning is how to manage in a human sense.

Professor William Dolmball at Princeton studies the economics of unbalanced growth. What Dr. Dolmball says is this "if the subsystem of a system grows at a rate that exceeds the growth of the greater system, it becomes a system".

If you look at the rate of expenditures for education as one sub-system, the figures are clear, they are very upsetting. The educational sub-system has grown at a rate that exceeds the rate of growth of the GNP even though it contributes to the GNP. Education now is the largest system in the whole United States. The most expensive program, we have far more than defense even though we don't like to say it. Maybe it should be more than defense, I personally think it should be, and its rate of growth is now 8% of the GNP. In 1943 it was 1.8% of the GNP. In the year 2000 it will be 33% of the GNP. In the year 2080 it will be all of the GNP. This is absurd. Ah, but you have the same figures when you look at health services and welfare services and criminal justice services. You put them all together and you blow your mind. You saw the Time Magazine that shows Uncle Sam with his pockets out, broke.

Everybody says, "You sound like a friendly fascist. Don't you know that we are the most affluent Nation in the world. We got all that money we will take it from here and stick it over there." No way. We have learned a very tough thing here in America. In this great nation of ours we have learned about our resources--air, water, and you wonderful people in Florida are worried about people going wild on the Keys. If they keep developing your Keys you won't have any Keys. The word "ecology" is now well known by everybody. This may make you laugh, but I think it would be terribly disturbing and maybe even ironic if the first natural resource to be exhausted would not be our oil or our forests but the first one--- the American buffalo might very well be the American taxpayer.

Now, we must learn to live in harmony with each other. I am not going to say what the amount of growth can be. Obviously, we have an awesome economic potential but there comes a time when we must seek a balance with the word productivity. What does it mean in social institutions? What is the correct balance? What do you do for yourself and what is done for you? All of these are important issues. I am not smart enough to give you answers but I do know that we must begin to consider our fiscal resources as we are now beginning to consider our air, water, and each other. It is an interesting world we are inheriting. I think we all know that.

Why account[illegible] then? Because in these kinds of concerns that force the fac[illegible] we are utterly dependent on each other, our organizations [illegible] that we have some kind of final amount of resource somewher[illegible]t there.

We must learn to live in harmony and even to celebrate.

Accountability is not new so that one says why accountability one would say because we have always been accountable. What has changed is what we are accountable for. Let me illustrate that. I could make the same case for all institutions. No institution can survive without being accountable. People say to me you sound like a military industrial complex. That is interesting, because accountabilit comes right out of the Bible with accountability to God himself or the stewardship on earth, very clearly stated.

Accountability is not a strange word. It means responsibility for something to someone with consequences. Good ones if we are accountable and not so good ones if we are not accountable.

First, for the custodial care of children. We are strictly accountable to the parents and if we have tenure it doesn't make any difference. Let me illustrate. I could pick up a telephone anywhere in the United States, call any of the 18,000 school systems, any of the schools and have the following conversation. "I have a youngster in your school and we have an 11 o'clock appointment at the dentist, would you be so kind as to have my daughter in your office". And the principle always says "yes".

That is incredible. It could be a school of 4,000. In order to discharge that responsibility to me, he has to have class rolls, kids have to hold up their fingers to go to the bathroom, they have to have a hall pass. Why does he do that? Think of this conversation. "I don't know where your daughter is, did you bring her here this morning?"

Why is flexible scheduling not flourishing in our country? Why can it never flourish? Accountability in other nations is strict and used to be at the college level. In our dorms and what not that can change, it probably is changing, but there it is. We are accountable for the fiscal affairs. Before 1920 we weren't. Before 1920 money used to go the school system for salaries and sometimes it didn't get to the salaries.

Now we are the most honestly run business in the United States, with very rarely any problems. Why? Because we are successfully accountable: we are very rigid. We must have a public budget. Every State requires this and independent audit by a CPA and the result is that we have the trust of the American people in fiscal affairs.

The American school system in elementary and secondary education is accountable to the public. So successfully have we been accountable, that we can't do anything else. The Congress is upset and so are

many people although they want their youngsters to go to college. They want the other fellow to go to vocational school. The American school system has been so absolutely successful in honoring the college preparatory accountability that it is almost going to do us in as a nation. We have got to find some other way.

The 1870 curriculum is called College Preparatory. You know what it is--you all took it: algebra, geometry, foreign languages, English. A group of professors got together and they said, "We must have quality. A lot of boys and girls are going to college and by golly some of them can't read. It makes sense. We are going to have a college preparatory curriculum." It became the curriculum. Now we can't imagine any other way but that curriculum. After all, in those days it was thought that to train to mind took good solid academic subjects.

So now everybody came through and went through that program and it is unchanged. Science was added ten years later. In 1900, we standardized time. We became accountable for time. Every place you go in America we talk about local control, every single college preparatory course is offered for not less than 45 minutes or more than 55 minutes. Why? Because we are strictly accountable with the Carnegie Unit. Now we had it made. Everybody took the right course pattern and everybody took it for the right amount of time but you know, some kids that went to college could read and some couldn't.

Why accountability? The problem with American education is that it has been successful not unsuccessful. We have convinced the American people that the school is a necessary thing for their salvation. Accountability? Turns out to have been the very first provision in the new world: the Satan Deluder Act of 1647. Imagine the scene. English men and women have come to a new world and all of the constraints are being lost. Normally it was the home that taught youngsters the rudiments of the Bible. These are staunch Protestants who believe if you cannot read the Bible you will go to Hell. This is a place. The elected selectmen of the Massachusetts Bay Colony are concerned because boys and girls cannot read the Bible because they are busy doing other things. In 1647 they pass a law that admonished the family to do something. Teach your children to read the Bible. This Act says that Satan lies in wait to snare the souls and therefore, whereever there are 50 families you will set up a school and you will employ a teacher. But the people at that time are not interested in either schools or teachers. They could care less. They are interested in results and they very clearly say that we want the children to read the Bible.

It is go or no go. Can you imagine some youngster walking down the street and Satan lies in wait and he pops out and he says, "Can you read the Bible?" and he says "I have a "C" in Bible reading." So Satan says, "What is that?" and he says, "It is better than a "D". Satan says, "What is a D?" and he says, "That is barely passing." "What do you mean by passing, can you read the Bible or can't you?"

I make light of something but I think what I am trying to show you is that a lot of things that we take for granted have worked in their time. We have a new set of Satans. Very shortly we will have 100 million in the work force. A trillion dollar economy and less than 5% of those workers can be unskilled. If we permit any institution designed to foster learning that produces young people who cannot survive, then we must find alternative ways to get things done. It is not going to be easy.

We have a lot of new things to learn. What are they? Personal commitment to all the children. Professional competence. What can you do as a librarian. I dare say a great deal. What do you accomplish in terms of learning. How is he better? Personal responsibility and system accountability. What do you do as a profession so that your tough problems are systematically addressed?

Why should we be accountable? I have been concerned over the years as one human being with what do people celebrate. It occurred to me that what we celebrate tells a great deal about us. When I began teaching at college three years ago, I was kind of a little awestruck by working with young people, I had been working with bureaucrats so long I didn't know if I could communicate. I had all these visions about stereotypes. I learned a great deal by working with young people. I find that certain terms "turn them on" and I didn't know why. One of them is the celebration. I thought it meant at first that they liked to go out and get drunk but that is not it at all. It is the celebration of awareness. What is this thing? I got to thinking, it is interesting what we do celebrate. We celebrate a birth not a death--we celebrate the life. We celebrate a marriage not a divorce. We celebrate the gaining of a job particularly if there is much competition. We celebrate the founding of a nation. We celebrate a victory of Florida State if they would beat UCLA in basketball--that would be a fantastic celebration. The Catholics use the word celebration in describing the celebration of a Mass in which we experience thanksgiving and joy because they have the way to overcome Death itself. It occurs to me that we celebrate the things that have high risks and we overcome the odds. You know this is a wonderful thing--I tried it on some people in the Peace Corps that I know and they told me this is what they experienced. What William James, the great psychologist, called the mystic

experience. When you challenge the odds. When those you help succeed where they might not have succeeded. The people who experienced the greatest joy are those who work with the toughest problems. Maybe this is the ultimate for accountability.

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PRESENTATION PREPARED FOR
INNOVATIONS IN SCHOOL LIBRARIANSHIP INSTITUTE
COST ANALYSIS MANAGEMENT INFORMATION SYSTEM

Accountability has been defined by the Florida Department of Education as the process of explaining the utilization of resources in terms of their contributions to desired objectives. The resources referred to include facilities, materials, and personnel. These resources are generally valued at their acquisition cost in dollars. To apply this concept of accountability, it is necessary to have available cost analysis techniques which make it possible to relate costs to the attainment of educational objectives. The primary techniques to accomplish this end is our Cost Analysis Management Information System. To facilitate communication we use the acronym "CAMIS."

The title implies that costs are to be analyzed in a manner which produces useful cost data for a management information system. A management information system might be defined as the methods by which a body of facts is assembled to enable management to compare the consequences of alternative strategies for accomplishment of the organization's goals.

A management information system for a school board would include cost data and the following types of data:

(1) Pupil Data
(2) Personnel Data
(3) Facilities Data
(4) Instructional Program Data
(5) Community Data

The basic method by which cost data is accumulated is the accounting system. Accounting is defined by the American Institute of Certified Public Accountants as, "...the art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof." Accounting is a tool for communicating the financial facts about an activity to those responsible for managing that activity.

An account is a descriptive heading under which similar financial transactions are recorded. The essence of accounting system design is that the accounts collect data which is significant in

the operation of that particular enterprise. If the accounts are appropriately structured, their summarization and the resulting reports can be the basis for management decisions.

CAMIS is a new and more powerful accounting system for education. It is output oriented for accountability. Traditionally, education has concerned itself with input measures. We have equated more with good. Quite frequently, more was good, however, most of us recognize the weakness of this rationalization. Moreover, we see that we cannot properly manage our resources toward the achievement of goals and objectives without output oriented cost data.

Florida's major state objective is increasing the productivity of all public educational programs. Increased productivity means:

(A) increasing pupil learning without increasing costs,
(B) decreasing costs without decreasing pupil learning, or
(C) increasing pupil learning with the increases in costs warranted by the overriding benefits of the increase in learning.

Obviously, to meet this objective, we must have cost data so that we are able to relate costs to the attainment of objectives.

Assessment is, of course, the most vital element in our developing accountability program. We must be able to measure pupil achievement of preselected objectives.

My assignment at this time is to describe the development of CAMIS. To understand this project it is helpful to refer back to the nineteen fifties to the initiation of the U. S. Office of Education's Handbook Series. This series promotes a standardization in educational statistics. The titles in the series are as follows:

Handbook I - The Common Core of State Educational Information - 1953

Handbook II-A - Financial Accounting, Classification, and Standard Terminology for Local and State School Systems - 1957

Handbook II-B - Principles of Public School Accounting - 1967

Handbook III - Property Accounting for Local and State School Systems - 1959

Handbook IV - Staff Accounting for Local and State School Systems - 1965

Handbook V - Pupil Accounting for Local and State School Systems - 1964

Handbook VI - Standard Terminology for Curriculum and Instruction in Local and State School Systems - 1970

Handbook VII - The State Education Agency, Standard Terminology and a Guide for Recording and Reporting Information about State Education Agencies - 1971

Handbook II-A is the basis for most public school accounting systems in the nation. Its stated primary purpose was to, "define and classify items of information about financial transactions." Florida's "Blue Book," A Manual - Financial Accounting for Florida Schools, was published in 1959 and is an adaptation of Handbook II-A. It carried the statement that, "Standard accounts and terminology are the foundation for accurate recording, reporting, and interpretation of financial information. Only when basic items of financial information have the same meaning in every county in the State and every State in the Nation, can they be used profitably for all purposes."

The Florida Manual established the:

Uniform classification of accounts
Uniform account numbers
Minimum reporting requirements
Uniform accounts beyond the minimum
Approved and prescribed forms
Accounting procedures

Accounting for expenditures prescribed by the Manual is by ten primary functional classifications:

System-wide Administration
Area Administration
Instruction
Operation of Plant
Maintenance of Plant
Auxilliary Services
Fixed Charges
Community Services
Capital Outlay
Debt Service

Within each function, objects purchased are identified. For example, within the function Instruction there are salaries for Supervisors, Principals, Teachers, Other Instructional Staff, Substitutes, and Clerical Assistants. Other objects within

Instruction include textbooks, audio-visual consumable supplies, periodicals, and newspapers, other library expense, teaching supplies, other expenses for instruction, and contracted services.

The handout provided to you is pages 7 through 10 of the District Superintendent's Annual Financial Report. These pages present the general status of cost data information currently available in most Florida districts. Some districts go beyond this level in that they have this data on a school basis rather than district basis. Also, there have been a few experiments with program budgeting.

What's wrong with the present system? It describes what was purchased for the school district without reference to programs or strategies. It tells how much was spent for teachers salaries without specifying how these teachers were employed. It tells how much was spent for books without indicating what programs benefited from the purchase.

The U. S. Office of Education issued a contract in 1967 to begin development of a revised Handbook II. A second draft was distributed to cooperating agencies last month. CAMIS is based on Handbook II, however, the system is openended so that local school boards will have latitude in selecting the management information it needs. The Department of Education began development of CAMIS about eighteen months ago. An advisory committee of local personnel has met four times to suggest direction and review work. Last year, twenty-five workshops involving program and finance personnel of sixty-five districts, were held to explore the need for CAMIS, when it should be implemented in their district. The participants were almost unanimous in their desire to convert to the new system, and to use its full potential. All except four districts felt that 1975-76 was a practical implementation date. This date is probably over optimistic for the technical requirements of the system. It is a computer operation. Some access to a computer is needed. Personnel must be trained. Money is needed to overcome implementation problems. Additional money will be needed for operations. There are large hurdles, however, CAMIS will be implemented throughout Florida within a few years. In 1972-73; three Florida districts (one large, one medium, and one small) will operate such an accounting system. These pilot efforts will answer many implementation questions and demonstrate the value of CAMIS.

While it would be futile to attempt a full explanation of CAMIS in this short time period, an overview will indicate the types of information which the system will produce.

Financial transactions fall into three basic categories: Revenue, Expenditure, and Other. Revenue and Expenditure are pertinent to our discussion.

Revenues are categorized by their source. Revenue sources are determined by law, and therefore, Revenue in CAMIS is basically unchanged from the present system.

Expenditures are our primary concern. Expenditures under CAMIS may be categorized under nine dimensions as follows:

Fund
Object
Function
Facility
Activity Assignment
Program
Fiscal Year
Instructional Organization
Special Cost Center Definition

Definitions of these dimensions are supplied to you in Handout Number 2. The first three dimensions (Fund, Object, and Function) exist in the present accounting system. Object and Function have been redefined. Fund remains essentially in its present form.

A Fund is an independent fiscal and accounting entity with its own assets, liabilities, resources, and fund balances which are segregated for the purpose of carrying on specific activities of a school district in accordance with special regulations, restrictions, or limitations. All money expended by a school system is classified and defined in this dimension.

The four basic funds are:

General Operating Fund. This is a set of accounts used to show all ordinary operations of a school system, or generally all transactions which do not have to be accounted for in another fund.

Debt Service Fund. A fund used to account for payment of interest and principal on all bonds and long term loans.

Capital Improvement Fund. A fund used to account for resources used for acquisition or improvement of capital facilities, land, buildings, equipment, library books, and audio-visual materials.

Contracted Projects Fund. A fund used to account for special projects: Uses and limitations are specified by the legal authority establishing the fund and, generally, the resources of this fund cannot be diverted to other uses. Federal projects are accounted for in the Contracted Projects Fund.

Two other funds are presently in use:

General Fixed Assets. This self-balancing group of accounts is used to provide a record of fixed assets owned by the school system. Again, we are talking about land, buildings, and equipment, however, this is the continuing status account for these assets. The term fixed refers to the intent to use over a long time period rather than attachment to the ground or a building.

General Long-Term Debt. This self-balancing group of accounts is used to account for general long-term debt of the school system. As in the Debt Service Fund, we are concerned here with bonds and long-term loans, however, this is the continuing status account for all debt issues.

Two additional funds are provided for future use:

Food Service Fund. A fund used to record receipts and disbursements of school lunchrooms.

Student Activity Fund. A fund used to record receipts and disbursements for athletics, newspapers, yearbooks, and clubs.

These two funds are not presently a part of the school district's official accounting records, but are accounted for in what is termed "internal funds." Our thinking is that these funds should be incorporated in the general accounting records at the earliest practical time.

Object literally means the thing or object purchased. In CAMIS there are seven major object categories:

Salaries
Employee Benefits
Purchased Services
Materials and Supplies
Capital Outlay
Other Expenses
Transfers

These broad categories are subdivided for more detail. For example, Capital Outlay is divided into:

Library Books
Audio-Visual Materials (Non-Consumable)
Buildings and Fixed Equipment
Furniture, Fixtures, and Equipment
Motor Vehicles
Land
Land Improvement
Other Capital Outlay

Function means the action or purpose for which a person or thing is used or exists. Function includes the activities or actions which are performed to accomplish the objectives of the enterprise. The activities of local districts are categorized in four major functions as follows:

Instruction. Instruction includes the activities dealing directly with the teaching of pupils, or the interaction between teacher and pupils. Instruction is subdivided into Regular Education, Special Education, and Adult Continuing Education.

Instructional Support Services. This includes administrative, technical, and logistical support to facilitate and enhance instruction. Instructional Support Services include Guidance, Health Services, Psychological Services, Instructional Media Services, and others. Instructional Media Services is defined as those activities concerned with the use of all teaching and learning resources, including hardware and content materials.

General Support Services. Those activities concerned with establishing policy, operating schools and the school system, and providing the essential facilities and services for the staff and pupils. This includes salaries and expenses for the school board, superintendent, central office services, principals, transportation, and others.

Community Services. Community Services consist of those activities that are not directly relatable to providing education for pupils in a school system. These include services provided by the school system for the community.

Facility. This is the dimension in which costs are accumulated by school and office location.

Activity Assignment refers to a description of the activities assigned to a staff member. This dimension is used to inter-relate staff activites to a program and its cost. Examples of assignments are Teaching, Teacher Aide, Librarian, Media, Graphic Arts, Principal, Assistant Principal, and Clerical. Since education is heavily labor intensive, this dimension is quite valuable for management analysis. Salary and benefit costs run about 90% of current expense.

Program. A program is a plan of activities and procedures designed to accomplish predetermined objectives. Programs have not been defined by the Department of Education and at this time districts are free to use the program dimension of CAMIS as they see fit. Districts are cautioned that regardless of how general or specific programs are defined for cost accumulation purposes, the programs must be based on measurable objectives if they are to be evaluated.

Fiscal Year denotes the twelve month period to which the annual budget applies. This dimension is of value in analyzing programs which extend into two fiscal years and in preparing histories of certain program costs.

Instructional Organization identifies the specific level of instruction benefiting from a particular expenditure. The degree of specificity depends on the costing objective of the district. For example, Pre-Kindergarten, Kindergarten, Elementary, and Secondary.

Special Cost Center. A cost center is the smallest segment of a program that is separately recognized in the records, accounts, and reports. When a school district identifies its instructional

programs, these become, in essence, the instructional cost centers. By use of the Facility dimension, management divides these district-wide cost centers into school cost centers. As a further breakdown, management could establish special cost centers to accumulate costs of a program element.

The nine dimensions of CAMIS are designed to allow for the accumulation of any significant educational management data. Definitions of dimensions and accounts have been written except that, at this time, districts may define their Programs and Special Cost Centers. Most dimensions allow for a district option as to level of detail. Decisions as to what will constitute the state mandated level of implementation are in abeyance. However, the decisions will be in line with state policy to require the minimum needed for state and federal reporting and allow the districts to determine the level of implementation that meets its management needs. This is consistent with the concept of local accountability.

The thrust of CAMIS is the improvement of the educational process through effective and efficient use of educational resources. CAMIS provides a vehicle for districts to gather cost data on an instructional strategy employed within a subject area and/or dicipline at any grade level of a school. This cost data is an important consideration in the determination of whether it is feasible to implement an instructional strategy. Cost analysis capability when utilized with pupil assessment and other evaluation data will provide a basis for cost-benefit analysis of educational processes and products.

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PROGRAM PLANNING BUDGETING SYSTEM

There is a gradual emergence of a managerial consciousness within the framework of government which involves a departure from interest in organizational arrangements in the direction of the development of a managerial system. Governmental institutions are under pressure as managerial institutions because they must address in a very forthright way new kinds of problems which are subject to new definition and which do not lend themselves to orthodox division of functions which are found in government at present.

In the private sector, the difficulties of management assessment are eliminated by the use of the profit and loss statement, probably the most powerful analytical tool to assess performance that has been discovered in western managerial society. Certainly the problems of personnel utilization, inventory control, and financial and capital structure are important, but the real indicator of good management is the profit and loss statement, which determines the rate of return on one investment as compared to that of an alternative. This technique is not available readily in the public sector. In government programs, it is not always clear what is being maximized or optimized. Public resources are managed through the development of simple and acceptable proxy devices which help determine efficiency. The public sector cannot operate like the private sector in the analytical sense, regardless of how sophisticated the techniques or diligent the efforts.

Public management is not simply an economic system, it is also a political system, in the analytical sense. It is a political system that works through varied intervening stages, presumably reflecting what the people want. Considerations and measurements of efficiency are measured not only in terms of resource utilization in the conventional private sector sense, but also as related to political values.

The Planning, Programming, Budgeting System (PPBS) is an approach to decision making designed to help make as explicit as possible the costs and consequences of major choices and to encourage the use of this information systematically in the making of public policy. It is an evolutionary change that grows logically out of 50 years of improvement in the techniques of budgeting, accounting, and analysis, in both the Government (public) and the private sectors.

Traditional school budgeting and accounting is prudential, designed to safeguard the public monies, and to make an historical and accountable record to show that money was spent as intended when voted. The process in traditional budgeting is incremental in that the budget for each period starts from the base of the previous period. The process has been described as involving only the use of last year's budget plus 5% or as giving them what we gave them last year plus a little bit more this year. It is likely that such a process is used in a majority of the nation's 17,000 school districts.

Traditional budgets are input oriented and consist only of an outline of expenditures by function--i.e., instruction, administration, operation, maintenance, etc.--by object--i.e., salaries, contracted services and other. School board members and other decision makers must somehow develop an image of how the budgetary pieces form a working system.

PPBS is an attempt to integrate policy formulation with budgetary resource allocation and to provide a means for regularly bringing systematic analysis to bear on both policy formulation and budget allocation. PPBS goes beyond control and efficiency. It is concerned with specification of objectives and selection of programs; it presupposes that decisions on these matters can be aided by systematic analysis using criteria which are at least, in part, not political; and it establishes a planning system that tends to strengthen the upper tiers of management.

No one should conceive PPBS as a system that makes decisions--it is only a means of helping responsible officials make decisions. As a system PPBS Consists of four elements:

1. Program budgeting
2. A program and fianacial plan (annual and multiyear)
3. Program memoranda (a summary of the analytical basis for important policy and budget choices)
4. Special issues (focus the limited analytic resources on the more important problems)

To use a marriage analogy, PPBS has been described as:

1. Something old (scientific method)
2. Something new (consideration of alternatives)
3. Something borrowed (PPBS was implemented by the Department of Defense)
4. Something blue (poorly stated objectives)

It should be reiterated that PPBS does not seek to replace political decision making but will, if successful, modify the process. PPBS attempts to influence choices of both ends and means through a problem solving approach, to emphasize analytical criteria of effectiveness and efficiency rather than a political criterion of consensus, and to stress long-range planning.

Lindblom and others have criticized the system in the following way:

1. PPBS is unrealistic--the actual decision-making process is not suited to problem solving.
2. In a free society the problem-solving approach does not arrive at good decisions. The approach substitutes efficiency criteria for more meaningful consensus.
3. Specifying ends and separating means from ends and examining a wide range of alternatives is unattainable and undesirable when applied to social and institutional problems.

Lindblom stated that we discover our objectives and the intensity we assign to them only in the process of considering particular programs. We all subscribe to both the goals of ending poverty and of preserving work incentives but we do not have an abstract social welfare function that predetermines the tradeoffs between these goals that can be applied toward making a choice. Yet, we can make a decision about a particular piece of social welfare legislation that sets certain income limits on welfare payments.

Lindblom also pointed out that Federal Aid to elementary and secondary schools was vigorously opposed by some on the grounds that it would lead to a federalized system. However, after implementation of ESEA, the opposition was diminished. The presumed connection between the subordinate goal of financial independence for local schools and the higher goal of policy independence has been shown by experience not to be as strong as originally thought.

The Lindblom School lays great stress on the inherent difficulties in predicting consequences of any particular programmatic means on a wide range of ends or values that exist. For example, who can predict the consequences of model cities programs on social structure, political power, integration, and other relevent values?

Lindblom sees the science of muddling through (opposite of rational problem-solving approach) as a better approach. Decisions are reached through advocacy and bargaining in a highly pluralistic decentralized system. Specification of goals or ends isn't forced to minimize

debate about values. The movement toward objectives should proceed by small steps (incrementalism) because of the conflict with values and because of an inability to determine full consequences. Advocates of every significantly affected interest have a voice in policy making rather than individual analysts who can't trace the consequence of policy decisions for a wide range of values.

Returning to the topic of PPBS, the crucial element is that it operates through the budget process. It seeks to bring analysis to bear on decisions by merging analysis, planning, and budgetary allocation.

PPBS is zero-based oriented--it does not accept last year's budget as a starting point for analysis. It seeks to evaluate existing programs in light of objectives and seeks more effective alternatives. As it is evolving, PPBS falls somewhere between purely incremental budgeting and an annual zero-base review of all programs. The political opportunity costs of seeking too many fundamental changes at one time, the scarcity of analysts and the limitations on top-level decision-making resources account for the current PPBS status.

To be successful PPBS must remain a living part of the decision process. It can only do so if it helps the policy maker in terms of specific decisions. In the field of education, if the process doesn't help to improve teaching, it is questionable whether the additional investment is worthwhile.

The setting of the goals and/or objectives should start at the classroom or operational level with the assistance of staff. The setting of goals from the so-called bottom up insures the positive and attainable goals since the people involved help develop and create the conditions they wish to achieve. As each level of goals moves through the organization, the media of negotiation and adjustment should be used when adding additional inputs until such time that a complete set of goals representative of the entire organization becomes the organization's objectives.

Once the operational level personnel set a level of achievement for themselves in collective cooperative decision, the plateaus that they can attain are remarkable. Even as in the "Hawthorne" experiment, people who feel special and are treated as such perform beyond expectation.

The process of developing a PPB System and the estimates of cost must include the involvement of all the personnel who are to participate in any way in the program, if it is to be understood and carried out properly and is to be completely effective.

Factors to be considered in development should include:

1. Development of a state accounting manual.
2. Development of a philosophy of budgeting to include all staff and citizens where possible.
3. In-service training for staff members and principals.
4. Time--a successful PPB System cannot be developed in a short period of time.

There are innumerable options for approaching the installation of a PPB System that should be considered. The following three alternatives are the most frequently employed: (1) utilizing existing staff; (2) employing an outside consultant; or (3) purchasing a packaged program. There are a number of advantages and disadvantages that may be realized through the exclusive use of any one of these alternative approaches. Using existing members of the school district encourages maximum involvement and strengthens commitment but is very time-consuming. Using consultants can be costly and packaged programs can inhibit local creativity.

No matter what alternative is employed, the heart of the PPB System is the program structure, for it makes the outputs of a school district visible and identifies the resources required to yield these outputs. Two general characteristics applicable to all structure is that they must embrace all the activities of the school district and must provide a hierarchical classification scheme. An example of a hierarchy is as follows:

Program Level	Program Description
I	District
II	Instruction
III	Regular Instruction
IV	Social Studies, Grades K-12
V	American History, Grade 12

The following alternative methods of grouping instructional activities may serve as the basis for developing a program structure:

1. Subject area--major subject disciplines
2. Target group--gifted, disadvantaged, etc.

3. Grade level
4. Grade span--preshcool, elementary, middle, and secondary
5. Building
6. Objectives--cognitive, affective, and psychomotor
7. Hybrid--any conbination, such as subject area and grade level

The program budget for the Pearl River, New York School District included a brief statement concerning the library program. The format was as follows:

INSTRUCTIONAL SUPPORT PROGRAMS

Library Program

We plan to improve the existing Library Program by:
Increasing the library book budget

CERTIFICATED STAFF (includes substitutes, overtime and employee benefits)

		No. of Staff	1970-71 Budget
Librarians	5.0	6.0	$ 99,879
Library Coord.	1.0	2.9	19,816

NON-CERTIFICATED STAFF (includes substitutes, overtime and employee benefits)

Senior Library Clerk	0.8
Teacher Aides	0.8
Typists	1.3

EQUIPMENT	780
SUPPLIES (includes purchase of library books)	23,200
TEXTBOOKS	----
CONTRACT SERVICES	1,620
Total	$145,295

There was no statement of output relative to the Library Program and no clarification of what was meant by a plan to improve the existing Library Program by increasing the library book budget.

CONCLUSION:

PPBS is not a substitute for the experience, the intuition, and the judgment of educational decision-makers. Its aim is to sharpen that

intuition and judgement by stating problems more precisely, by discovering new alternatives, and by making explicit the comparision among the alternatives.

There is new emphasis upon using the budget as a planning tool and as an analysis document rather than strictly as an accounting system designed principally to categorize cost breakdowns, such as by people employed and by supplies purchased. An important justification for use of program budgeting is that it forces consideration of the relationship between individual projects and the programs of which they are a part.

An excellent set of educational budgets can represent the epitome in planning, the excitement of the interrelationship of multiple educational forces, the dynamism of an adaptable organism, the most tangible plan for decision implementation, and the best indication of a community's commitment to improvement of mankind. Again, tradition must yield to change.

Department of Education
Tallahassee, Florida

FLORIDA DEPARTMENT OF EDUCATION PLANNING MODEL

(Needs Assessment/Programming/Implementation/Decision-Making)

I. Foreword

In 1969, the Florida Department of Education issued a non-technical paper entitled "A Model for Planning Education" in which was presented a simple description of the general systems model.[1] The paper was developed and presented to assist school districts in preparing plans for educational improvement, as required by Section 236.07 (6), F. S. Though this section of the statutes has been repealed, the requirement for district comprehensive educational planning has been strengthened by the addition of Section 236.02 (9) F. S. by the 1972 Legislature. The present paper is an expansion and updating of the 1969 paper, incorporating many concepts and suggestions obtained from experience in the field, as well as from strengthened and improved policy at the state level.

An attempt has been made to retain the concise nature of the former paper, while improving the utility and applicability of general systems theory to everyday district and institution operation.

II. Introduction

Planning may be defined as a way of rational decision-making which weighs means (resources) and ends (desired outcomes) in an effort to analyze how resources can be brought to bear on achievement of outcomes at least cost with maximum effectiveness.[2] These decisions have to do with allocation and coordination. Thus, the only rationale for planning is effective decision-making.

The model described herein is based on the concept of rational and effective decision-making. Rather than simplify the model by assuming objectives as given and focusing entirely on implementation, or vice versa, the model explicitly takes into account the decision-making which accompanies both objective-setting and resource allocation. The cyclical nature of the process, in which resource allocations in one cycle are governed by the extent of achievement of objectives in the previous cycle, is stressed.

The present paper takes specific notice of the existence and the consequences of the "planning context" -- the entire set of influences external to the system (school center, district, state, etc.) for which a plan is developed, and which limit or constrain the setting of objectives or selection or alternatives.

In the model presented here, it is important to distinguish between the terms "goal" and "objective." There continues to be considerable confusion in the use of these two terms, and the following discussion is intended to provide a clear distinction.

A *goal* is a global statement describing one or more classes of desired outcomes that provide general direction for an educational system, characterized by relative timelessness, unmeasurability, and philosophical orientation. For example, the Seven Cardinal Principles of Education are considered to be goals. (See also Goals for Education in Florida.[3]) On the other hand, an objective is an operational statement describing a single desired outcome of an education system, characterized by relative time-boundedness, measurability, observability, and orientation to the "real world."[4]

In better understanding this distinction, it is helpful to consider that goals and objectives lie at opposite ends of a continuum:

Goals*	Objectives**
1. Philosophical	1. Operational
2. Non-measurable	2. Measurable
3. Timeless	3. Time-bound
4. Provides direction	4. Specifies outcome

Imagine a statement of desired outcome, moving along the continuum from philosophical to operational. It becomes more and more specific. At the most philosophical level are the Seven Cardinal Principles or the Goals for Education in Florida. At the most operational level are daily classroom instructional objectives which specify minute, segmented, behavioral outcomes in discrete and quantifible terms. Between these two extremes stand district, institutional, or program-level long- and short-term objectives which are measurable--but general enough to be useful for longer periods of time than one hour or one unit.

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*Example -- All students shall develop skills in sports and other forms of recreation which will permit life-long enjoyment of physical exercise.

**Example -- 90% of students graduating from this system will have acquired skills in one individual lifetime sport at a level of proficiency described in the evaluation section of the district plan for physical education.

III. Needs Assessment

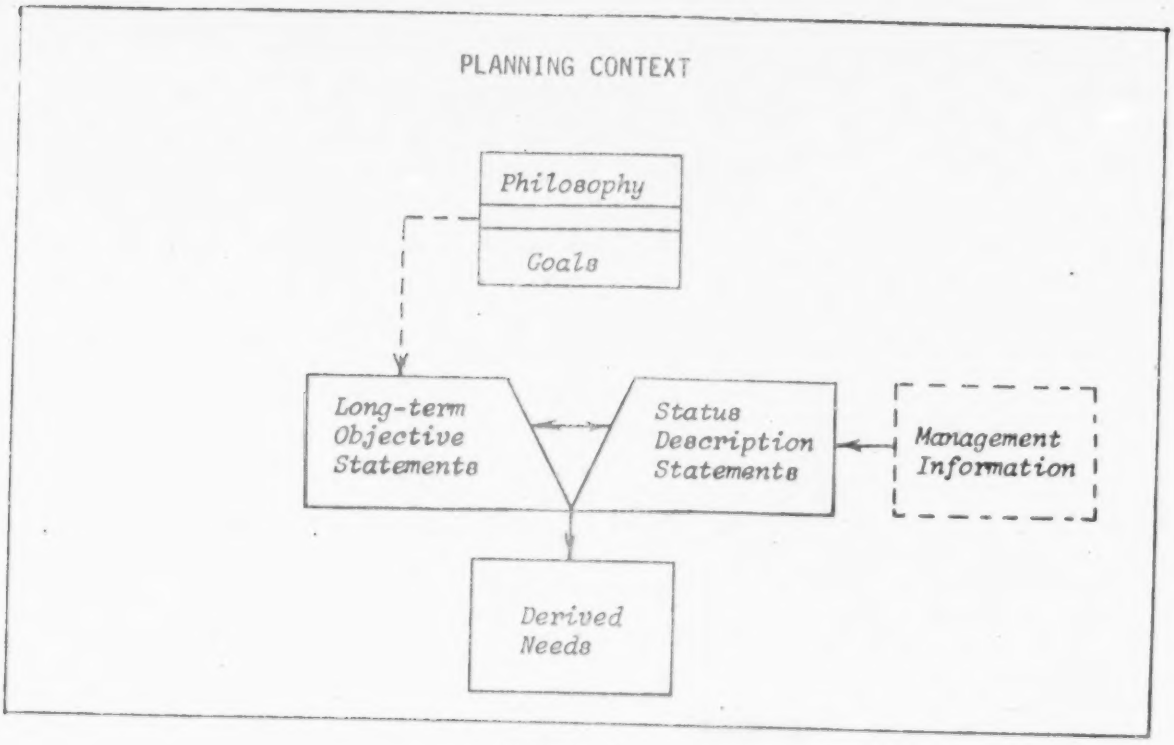


Figure 1

1. Philosophy/Goals. The educational philosophy of a system consists of accepted beliefs about the nature of and relationships among the community, the institution, the learner, and the teaching-learning process. The goals are statements of ultimate desired outcomes (as described in the preceding section). A consideration of resources is not required to the establishment of philosophy and goals. However, philosophy and goals are required, for they provide general direction for the system and are the bases upon which both objectives and strategies are determined.

2. Long-term Objective Statements. A long-term objective is a statement of a measurable, observable outcome (as described above), which is consistent with the philosophy and goals. It is designed to be achievable within a specified, but relatively long, time period. Long-term objectives are used to derive need statements as described below; they describe where you want to be at some time in the future.

3. Status description statements. These statements give the current status of a system, as evidenced by the management information collected for the system. They specifically describe the present level

of achievement of the related long-term objectives. Whereas the long-term objective statements describe a situation to be attained in the future (where you want to be), the status descriptions describe the current situation (where you are now).

4. Derived need statements. These statements describe the discrepancies (differences) between what exists (where you are now) and what is desired (where you want to be), for each previously stated long-range objective. They are derived by a simple comparison of the long-term objective statements and the status statements. In the model presented here, there can be no need statement unless it is derived from a comparison of a long-term objective and a status description. The process of deriving needs is often thought of as a sort of "subtraction," in which the status description is subtracted from the long-range objective, leaving the need as a "remainder."

5. Management Information. This information is used in several phases of the planning model. It is useful information regarding people, data, things, and financial resources which have implication for the operation of the system. A complete exposition of what constitutes management information is beyond the scope of this paper, but it may be loosely defined as the information upon which management decisions are based.

IV. Programming

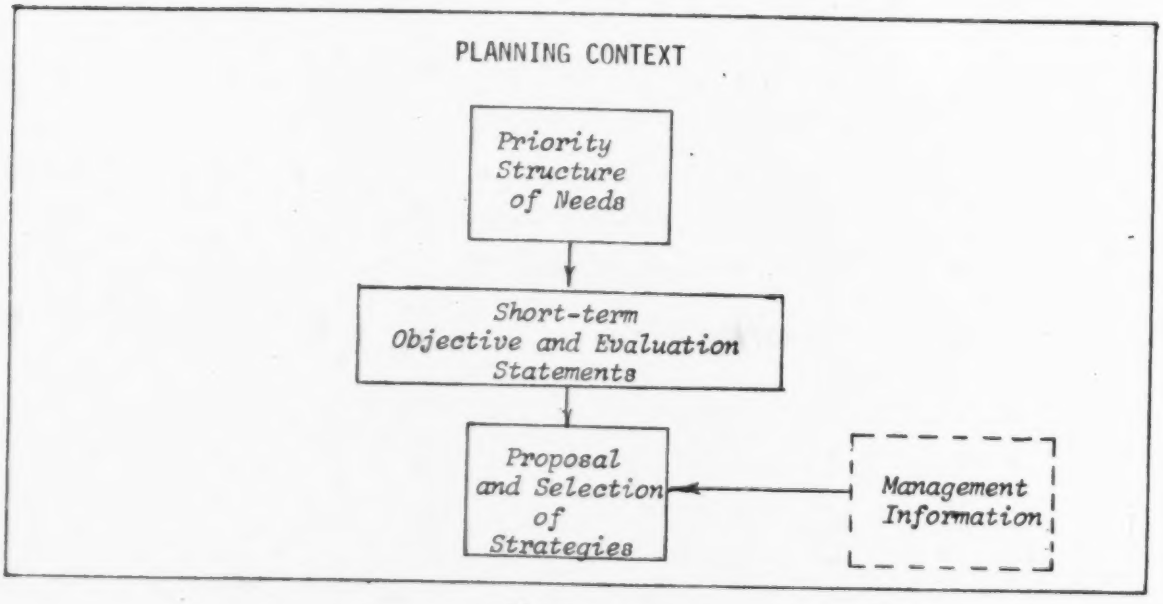


Figure 2

6. Priority Structure of Needs. After identifying the discrepancies or needs of the system with respect to stated long-range objectives, some determination must be made about the urgency of attention to be given to them. The use of the word "priority" implies that at least one need has been identified which the district cannot afford to pursue. This means that some attention should be devoted to a ranking of needs, so that in the event of unforeseen circumstances (such as a severe cutback in revenue) it will not be necessary to resort to devices such as across-the-board percentage reductions in funds. In other words, if resources are reduced, that reduction should not reduce the quality of all programs equally; the reduction in allocations should be focused on lowest priority needs, leaving continued high level allocations to the high-priority needs. It is likely, even with a severe cutback in revenue, that a high priority need could require the initiation of a new program while existing programs directed to lowest priority needs are discontinued.

7. Short-term Objectives and Evaluation Statements. *Short-term objectives* are similar in construction and content to long-term objectives. However, these statements usually describe more specific anticipated outcomes, and usually encompass a time-frame of a year or less. The anticipated outcomes described by short-term objectives should logically lead toward the reduction or elimination of a stated need. For each need to which resources will be allocated in a given year, there should be at least one short-term objective; there may be several. *Evaluation statements* are descriptions of the process to be used in determining whether or not the outcomes described in short-term objectives have actually been achieved. Short-term objectives and evaluation statements have been combined in this section to emphasize that product evaluation is directed toward the outcomes specified in short-term objectives. (See sections 8 and 9 below for a brief description of evaluation efforts directed toward strategies.)

8. Proposal and Selection of Strategies. In this step, many alternative courses of action are proposed (delineated) as means of achieving stated short-term objectives. As many alternatives as possible should be proposed and considered. The major restrictions on strategy selection are available time and resources. (*Management information* should be used in this determination.) The strategy(ies) selected for achieving any short-term objectives should be realistic in terms of resources, and should be reasonably expected to bring about the achievement of the short-term objectives within the time specified. At least one strategy should be associated with each short-term objective. However, note that any given objective may require more than one strategy, and more than one objective may be achieved by a single strategy.

V. Implementation

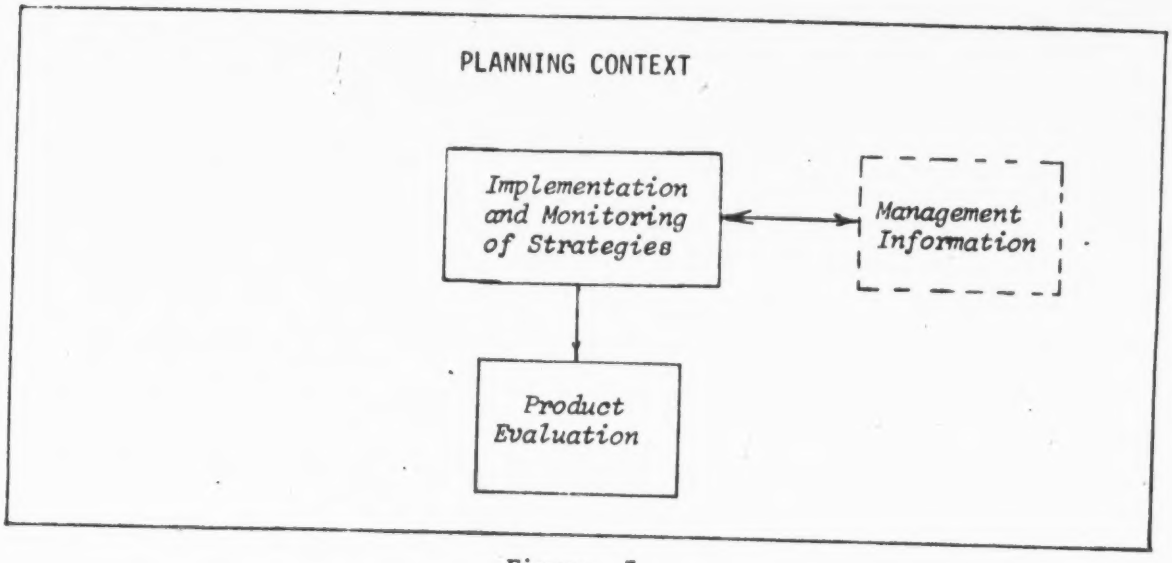


Figure 3

9. Implementation and Monitoring of Strategies. In this step, the strategies selected are implemented and resources allocated to them. It is simply the carrying out of the strategies planned for in the preceding step. The monitoring aspect of this step is the application of appropriate management techniques to assure that the strategies are being implemented as planned, and that there is progress toward the anticipated outcomes (product). The evaluation of strategies in process is included under the monitoring aspect of this step. Among other things, the monitoring of strategies should assist management in staying within budget or time limitations. The feedback line into Management Information (see Figure 3) is of importance here, for two reasons. First, the information derived from monitoring the strategies is organized in such a way that it relates back to objective and need statements in previous activities in the planning process; hence, it becomes relevant management information related to specific programs or projects. Second, if it is determined that a particular strategy costs more than expected or does not produce a reduction of need, management should not apply that strategy to the achievement of the same objective in a later cycle. If changes in strategy are warranted, this should also be noted as management information. (It should be pointed out here that the analogy between certain "research" and "evaluation" activities should not be carried to extremes.) Research experiments are usually carried to conclusion, even when it becomes obvious to the experimenter that the chosen methodology is not producing the anticipated results. When process

evaluation (strategy monitoring) indicates that the anticipated result will not be achieved, the process (strategy) should be changed or stopped.[5]

10. Product evaluation. In product evaluation, the previously stated evaluation activities (step 7) are carried out, and the relative achievement of short-term objectives is determined. Note again that product evaluation relates solely to the achievement of stated short-term objectives.

VI. Decision-Making

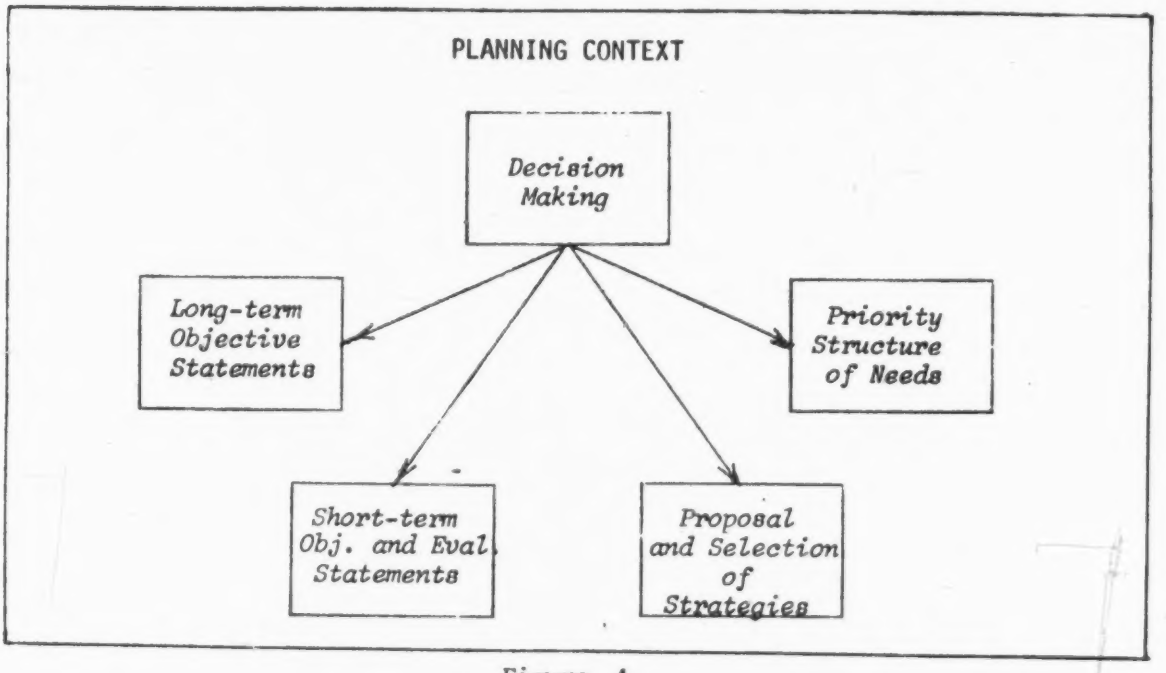


Figure 4

The entire process described above is intended to lead to better decision-making. Based upon monitoring of strategies and upon product evaluation, rational decisions can be made about the following:

A. The eficiency of a selected strategy: Did the strategy accomplish its purpose? Was the amount of resources expended justified by the extent of gain achieved? In what ways should the strategies by modified?

B. The appropriateness of short-term objectives: Did the objectives, once achieved, reduce or eliminate the need? Could the objective be accomplished in the specified time? Would other objectives be more appropriate in reducing the need? In what ways should they be modified?

C. The organization of the priority (urgency) structure: As a result of achieving short-range objectives, should certain needs be assigned higher or lower priorities?

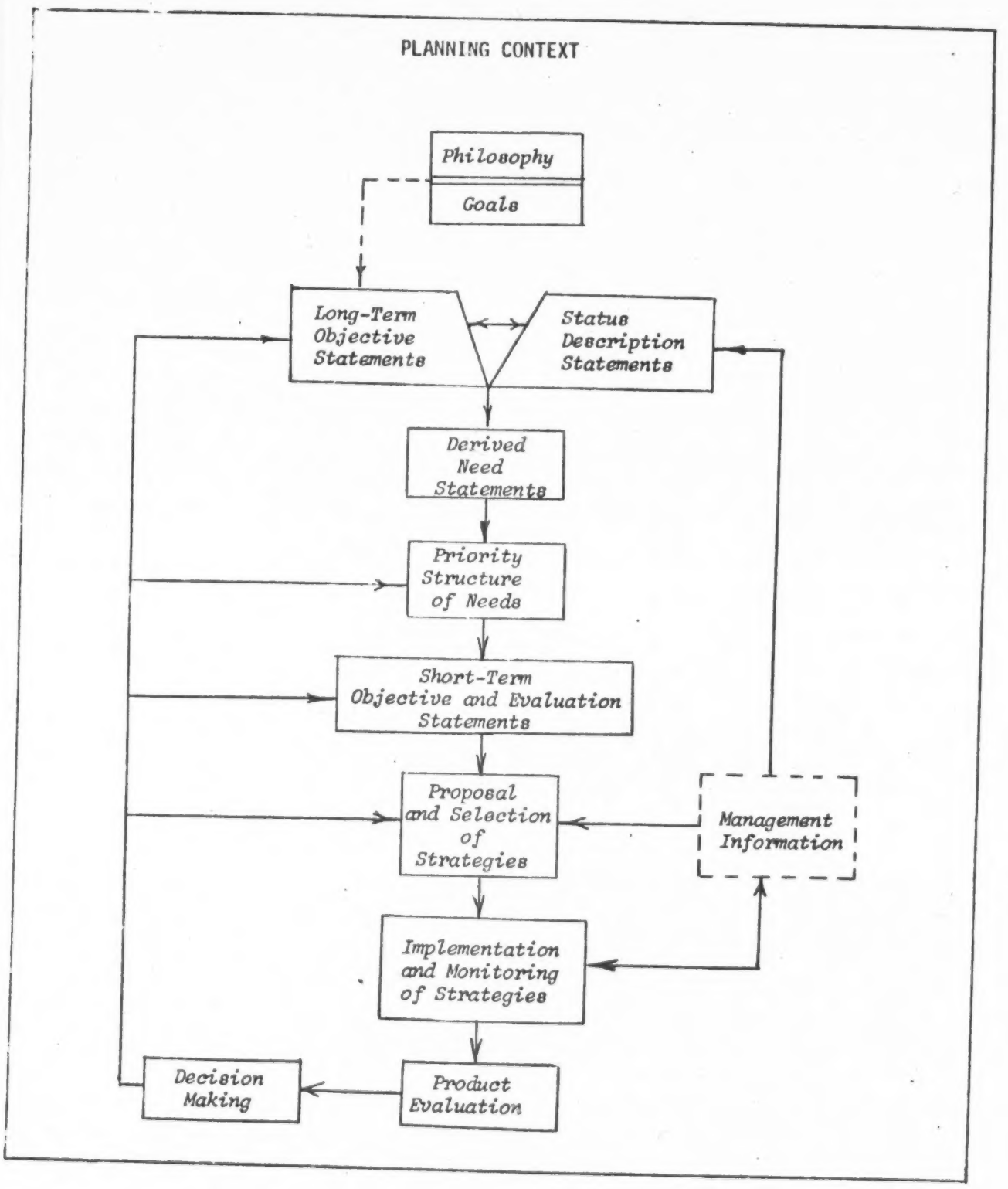
D. The relative importance of long-term objectives: Have they been achieved? Have they out-lived their usefulness with respect to the educational environment (or the planning context)? In what way should they be modified?

VII. Conclusion

The model presented here is designed for varied applications. The process described here is useful in developing various projects or programs, including District Comprehensive Plans, federal projects, classroom instruction, etc. It has demonstrated value in systematizing the thinking of planners at all levels, and may be used as a "writing model" for preparing proposals of all kinds. An additional advantage of following this approach is that the model is quite amenable to Planning-Programming-Budgeting System (PPBS) procedures which are being used increasingly by federal, state and local government agencies.

The model described in this paper is the model against which District Comprehensive Plans will be reviewed by the Department of Education. Criteria for specific aspects of District Comprehensive Plans will be described in future publications.

FLORIDA DEPARTMENT OF EDUCATION PLANNING MODEL



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THE DECADE OF REFORM IN EDUCATIONAL FINANCE

INTRODUCTION

With a zeal previously absent, Americans--from Richard M. Nixon to John Doe--have been examining the policy questions of educational finance since that day in August, 1971, when six California judges ruled in favor of John Serrano. The decision and the events Serrano has precipitated represent an extraordinary opportunity for reform of the structure and financing of American education; indeed, the most significant opportunity since the development of mass secondary educational institutions late in the nineteenth century.

"The time has come, the Walrus said, to talk of many things," and the many diverse consequences that Serrano portends are the major focus of my remarks in this paper. My desire to explore the myriad alternatives afforded by Serrano is, in part, a reaction against an impetuous tendency by some to accept or reject particular alternatives--a tendency I believe is premature and unfortunate. Before embarking on any course, we must evaluate the alternatives and their effects on the future of public education in American society. Thus, after a brief summary of the current situation, and a brief review of some of the more prominent reform proposals, I shall discuss some of the more probable consequences of Serrano for education in the 1970's.

THE PRESENT

Unlike most advanced nations, the United States does not centrally control or finance its elementary and secondary schools. Each state government has the authority to establish and maintain its own schools. In pursuit of this goal, each state except Hawaii has established local school districts to operate and administer its schools.

Relying upon local property taxes, these local districts provide, on the average, about 54% of school revenues in the United States. States supplement local monies with varying amounts and types of state aid; on the average, such aid amounts to about 40% of school revenues. The remaining 6% comes from Federal sources.

When state legislatures delegated the power to tax property to localities, they made a grossly unequal grant of power. Rich school districts have far more taxing power per pupil than other districts. The wealthiest districts in a state can be several hundred times wealthier than the poorest. These disparities become serious inequities when one examines their fiscal and

educational consequences, and the American ethic of equal educational opportunity becomes a hoax rather than a reality. Ellwood Cubberly made this perceptive comment back in 1905:

> ...due to the changing and the very unequal distribution of wealth, and to the absence of any relation between this distribution and the number of schools which must be maintained, the attempt on the part of different communities to meet the demands set by the state causes very unequal burdens. What one community can do with ease is often an excessive burden for another community.

In the case of Florida, the discrepancies among counties in property tax base and in expenditures per pupil are not as great as in many states. In Florida, approximately 55% of school revenues is from state sources with 35% from the counties and the balance from Washington. Every county must levy a seven mill tax, and no county may exceed a ten mill tax effort "cap." Now that does not mean that there is only a three mill discrepancy between the poor and the rich counties of Florida because a mill in one county yields more money per pupil than in another county. The Legislature of Florida has thus set up a system in which the rich can get more school revenues per pupil than the poor counties can.

It was to compensate for inequalities of educational opportunity that the states initially established state aid equalization programs. But none of these equalization or foundation programs have equalized either educational services or tax burdens. Their provisions for everyone rule out the possibility of equalization, and the amount provided is no longer sufficient to meet cost increases which yearly jump at a rate disproportionate to the number of pupils and even to the GNP.

Regular increases in state and local taxes have been needed just to maintain existing levels of school services--let alone provide the additional services which research and experience indicate are necessary. Between 1960 and 1970, school expenditures have more than doubled (from $15.6 billion to $39.6 billion) an increase of 153%. During the same period, pupil enrollment increased by only 30%. Similarly, between 1947 and 1967, GNP increased at an average annual rate of 6.4% while school expenditures rose at an average annual rate of 9.8%.

No one familiar with what is going on in local collective bargaining agreements between school boards and teachers can feel optimistic that spiralling costs will soon disappear. In California, within the past year, 60% of local school tax and bond elections were defeated. The recent court cases, like a deus ex machina, have

come to stage center at the opportune moment. In New Jersey, Texas and California (among others), state and Federal courts found in favor of plaintiffs who have contended that the current system of school financing violates rights guaranteed by the equal protection clause of the 14th amendment. The New Jersey case of Robinson vs. Cahill is now on appeal to the New Jersey Court of Appeals; the Texas case, Rodriguez vs. San Antonio School District, decided by a three-judge Federal court, is now on appeal to the U.S. Supreme Court; and California has decided not to appeal Serrano vs. Priest. Undeniably the most dramatic, and the first to be decided, Serrano vs. Priest is widely regarded as the most significant court case for public schools since the desegregation cases of the mid-1950's. In Serrano, the California State Supreme Court held that:

> This funding scheme invidiously discriminates against the poor because it makes the quality of a child's education a function of the wealth of his parents and neighbors. Recognizing as we must that the right to an education in our public schools is a fundamental interest which cannot be conditioned on wealth, we can discern no compelling state purpose necessitating the present method of financing. We have concluded, therefore, that such a system cannot withstand constitutional challenge and must fall before the equal protection clause.

Although it is too early to determine the direction that American educational finance will take, several states, educators, and intergovernmental committees--including a presidential commission--are considering diverse proposals for the financial reform of American education. I would like to briefly discuss some of them. Their breadth of approach illustrates alternate ways to respond to Serrano.

THE MANY FACES OF REFORM

In Michigan, Governor Millikin has recommended a total revision in the method of financing public education. Calling for full state funding of education and the elimination of local levies for school operations, the Governor has proposed that revenues be raised through the levying of a statewide property tax and a higher state income tax; the distribution of school funds by the state would be based on measures of local need.

In Maryland, during its 1971 session, the General Assembly provided for the state's assumption of all school construction costs. A study made by the Citizens' Commission on Maryland Government, concluded that the state should assume the "total financial responsibility" for all public schools in Maryland and that this should be accomplished

through full state funding. To be phased in over a three-year period, the plan would ultimately raise all districts to the 1970-71 level of the highest expenditure district. Funds for compensatory education and special education would be allocated in addition to the per-pupil allocation. The revenues would be raised through state assumption of the local income surtax, a more progessive income tax, more equitable corporate and franchise income taxes, "other taxes to insure fiscal equity," and the remainder "if necessary" through a uniform statewide property tax.

The New York State Commission on the Quality, Cost and Financing of Elementary and Secondary Education, the "Fleischmann Commission," advocated in its current study that New York State should institute full state funding of public elementary and secondary education. Funds would be derived initially from a uniform statewide tax on the full value of property--the tax to be levied specifically for education and instituted over a five-year period. The Commission expressed the hope that once full state funding was underway, the statewide property tax could be reduced and the revenues raised through the state income tax. Districts would be ranked on current per-pupil expenditure. Those below the 65th percentile would be leveled up to that rank within three years; those above would remain at their current level until the others had been raised. Equal per-pupil expenditures would be provided throughout the state, except where learning problems--indicated by low achievement tests--required additional funds. The Commission also recommended statewide collective bargaining for salaries; tax credits for lower income homeowners and tenants; and strongly urged that local districts be forbidden to levy additional taxes to supplement the state allotment. The Commission felt that such supplements would perpetuate the current advantage to rich districts.

While New York would not permit local districts to supplement the state allotment, California is considering several plans which, if enacted, would combine full state funding and limited local effort. A uniform statewide property tax would replace the current local levy, ruled unconstitutional in Serrano. The state would redistribute the funds to the local district on a per-pupil basis. If it wished, each district could then make an additional effort to increase its total revenues for education. In contrast to the current situation, however, a poor district which makes an additional effort would net the same amount as a rich district making the same level of effort. This plan incorporates the concept of district power equalizing advanced by Coons, Clune and Sugarman in their book, Private Wealth and Public Education. Under their proposal, local districts are allowed to select the level of tax effort they wish to make for education; all communities who tax at a given level receive the same amount per pupil, regardless of the local wealth of the district.

The Advisory Commission on Intergovernmental Relations has built the concept of full state funding of education into its overall program for Federal-state-and local reform.

Although the shift from local to state responsibility would be a decided improvement, the study commissions imply and often stress that full state funding will require a Federal participation far greater than the current 6%. In his most recent State of the Union Address, President Nixon indicated that he intends to submit proposals to Congress for a major overhaul of public school financing. However, it remains to be seen what he will actually propose.

Hopes for increased Federal support were somewhat dashed by the President's Commission on School Finance. In its recently-issued Report, the Commission concluded:

> The Commission sees the Federal Government performing a leadership and pioneering role in long-range educational policy, but only a supplemental role to the States in the financing of school capital and operating costs.

While the Commission advocates full state funding, and would have the Federal government grant incentives to states that adopt it, the incentives do not provide anywhere near the amount necessary to help the states over the hurdle. Thus, the Report provides moral support, but not the financial sustenance needed by the states when and if they make the great leap forward.

If full state funding seems visionary and impractical, the example of New Brunswick, Canada may in part allay such skepticism. New Brunswick has had centralized educational financing since 1967, when it reorganized many of its governmental functions. Granted the province, with 172,000 pupils, has fewer students and smaller expenditures than most of its American counterparts; nevertheless, the problems that New Brunswick faced were analogous in character if not in magnitude, and the success of its initial efforts merits study and commendation.

The increased cost of education at the provincial level was met in part by restructuring the tax system in the following ways: a) elimination of the property tax and other local nuisance-type taxes; b) enactment of a uniform, province-wide real estate tax at an effective rate of 1.5% of market value determined by provincial rather than local assessors; and c) provincial billing and collection of all property taxes, including those of municipalities.

The number of local districts decreased from 400 to 33; the districts were organized into seven regions, each with a provincially-appointed

regional superintendent. Each district is administered by a board of elected and appointed school trustees who are responsible for the administration of finances within the district.

The individual districts annually prepare a budget for education. The budget is submitted to the Minister of Education; then analyzed by the Department of Education; and then discussed jointly by the department, regional, and district personnel, before a decision is made. The budgets are then submitted to the Treasury and ultimately to the Legislature for approval as part of the provincial budget. Since 1970, the Department has centralized the payroll and mails checks on a bi-monthly basis to approximately 10,000 teaching and non-teaching employees.

In addition, the province instituted a province-wide salary scale for teachers, based on education and experience but uniform throughout the province. Each district can hire as many of the best-qualified teachers as it is able to attract to meet its staff needs, within a suggested teacher-pupil ratio of 1-23. At the time of centralization, New Brunswick adopted the salary schedule paid in the best-paying district, rather than an average or intermediate one--a practice which initially increased teacher support of the plan. The salary scale is not determined by negotiations between the provincial government and the teachers' union.

New Brunswick has thus substantially equalized resources and services per pupil and elminiated some major inequities that contaminate state school finance systems in the United States.

THE CONSEQUENCES FOR THE '70's

A Backwash Epicycle

As the variety of these proposals illustrates, it is impossible to predict the specific fiscal outcomes of Serrano-induced reforms. In this connection, it is disturbing to note what I shall refer to as a "backwash epicycle" on the general movement toward reform. I refer to the claims that the Serrano cases potentially represent a "millstone" in educational finance. If the states introduce an equal expenditure per-pupil solution, the "millstoners" hold, cities may suffer. They further allege that if states institute a statewide property tax to pay for school costs, some cities would suffer because they have a low nominal property tax for schools and would thus have to increase their taxes under the statewide levy.

I argue that these critics, though technically correct in the short run, undermine the enormous potential for reform inherent in the Serrano cases. In addition, I believe they underestimate the existing

political strength of the cities by underestimating the capacity of cities to preserve in state legislatures the fiscal position they already hold. There is no practical possibility, for example, that a Serrano-type decision in New York State would lead the legislature to reduce teachers' salaries in New York City. Urban fears about the effects of an equal-expenditure solution to the Serrano de ision are politically naive, because the same political influences that have operated up until now--presumably to the benefit of high expenditure, low tax rate cities--would still operate in a post-Serrano legislative battle. Many cities desperately need additional financial resources for education. Many of these same cities, however, have received dramatic increases in educational resources during the past decade but have not demonstrated a commensurate increase in effectiveness and productivity.

In my opinion, Serrano-stimulated revisions in the financing of education argue well for the battle to increase educational recources available to the poor. To emphasize the possible limitations, rather than to recognize or seize the enormous opportunity would be a tragic, possibly fatal error.

Three Trends

I turn now to the consequences of Serrano for education in the 1970's. Assuming that the "wealth neutrality" and "fundamental interests" findings of the California Supreme Court are not overturned, three major educational trends will follow from Serrano: 1) reform of the governance and fiscal structure of public education; 2) related areas of litigation; and 3) new areas for educational finance and research and development. These trends are already discernible in many of the state reform proposals.

I. 1. Reform of the governance and fiscal structure of public education characterizes the first trend. An almost certain consequence of the Serrano cases is a reform of the revenue structure for public education. The current reliance on local property taxes will surely be an early casualty. Because of its yield and elasticity, however, the property tax is not likely to disappear, despite the plaintive cries of purists who object to its alleged regressivity. What is likely to happen--as indicated by several of the reform plans--is that states will return to the practice followed in the late nineteenth century of a statewide property tax. Rising costs for education as well as rising costs for other government sectors will probably require states to increase sales and income taxes along with a statewide property tax. States may or may not be successful in holding the lid on future property tax increases once the tax is shifted to the state level. At any rate, the shift of the property tax base to the state level, with a possible greater reliance on sales and income taxes,

will almost certainly improve the equitability of the revenue structure for public education.

2. A second major fiscal consequence of Serrano is likely to be full-state assumption of educational expenditures. No one can predict accurately whether states will move toward a system of equal expenditures based upon cost or educational need differentials. Undoubtedly, for political reasons, legislatures will have to adopt unequal per-pupil expenditures during early stages of post-Serrano adjustments. If the major city in a state already spends above average for public education, the legislature could manage the continuation or expansion of such above-average expenditures by providing in its finance formulas for variations based upon socio-economic need of students, or upon the increased costs of urban educational services. Nothing in Serrano indicates that the courts would strike down such provisions should a legislature choose to include them in a formula that met the "wealth neutrality" test. To date, the courts have taken pains not to foreclose the possibility for "rational" differentials in per-pupil expenditures. Another strategy that legislatures could follow in allowing for local variation in expenditures is the district power equalizing scheme advanced persuasively by Coons, Clune, and Sugarman. This plan is most likely to see the light of day first as an "add-on" provision on top of an essentially equal or need-adjusted state system of school finance.

3. Improved state policy making and assessment in public education is another likely consequence. The traditional regulatory function of state departments of education will continue, but all branches of state government--executive, legislative, and judicial--will play more explicit roles in educational policy making than heretofore has been the case. The next generation of state school finance formulas will channel state funds directly to local school buildings, as distinguished from school districts, and perhaps even pinpoint resources on individual classrooms. Many states are already moving to establish statewide assessment programs so that policy analysts and government leaders can review the effectiveness of educational resource allocations in terms of pupil attainment.

Assessment programs are emerging because significant groups of constituents interested in public education are demanding that legislators hold schools accountable for something more than simply spending appropriated funds in legally approved ways. They are demanding that schools be held accountable for the end results of teaching. They do not particularly care whether a school has high or low expenditures so long as their children learn to read. These demands are not restricted to disadvantaged communities; many white, middle-class parents are increasingly disenchanted with the effectiveness of schools.

The day is not yet here when legislatures cut off funds for local schools because the schools' performance on student achievement tests is unsatisfactory. But some states already conduct testing programs each year and base certain remedial and categorical aid programs on the results of the tests. The decade of the 1970's will witness increasing political pressures for state assessment of educational results.

4. Notwithstanding this trend toward improved and more aggressive state policy making for education, states are likely to continue the deep-seated American custom of maintaining local school boards authorized to make certain types of educational decisions. In particular, school boards are likely to continue to establish curriculum within general guidelines set by the state, and to employ school personnel perhaps subject to the provisions of a statewide master contract for teachers. Indeed, it can be argued that once boards are released from the bondage and politics of revenue-raising, they will be more effective policy makers in the curriculum and personnel areas.

5. A fifth probable trend is the shift of decisions about teacher salary levels from local school boards to state legislatures. Since teachers' salaries are 65 to 70 percent of most school district budgets, it is quite impractical to discuss equalizing educational expenditures without equalizing teachers' salaries. One approach would be for states to negotiate master contracts focused primarily on wages and fringe benefits for teachers. Legislatures could authorize local boards to negotiate local contracts with teachers on issues other than wages and fringe benefits; in particular, such contracts could focus on working conditions, in-service education, and the like.

6. A final consequence of Serrano in the governance and fiscal reform area is the likelihood of a new wave of school district consolidation as the state assumes increased policy-making responsibilities in education. The number of school districts in American has already declined from about 130,000 districts in the 1930's to less than 15,000 operating districts in 1972. The number is likely to decline to about 10,000, as two or three states which still have large numbers of small districts proceed with their consolidation. A possible state response to a Serrano ruling, suggested by the President's Commission, would be a drastic consolidation of school districts so as to reduce the disparities between rich and poor in wealth and expenditures. Further, if states take an increased interest in the efficiency of educational management, they are likely to provide even stronger incentives or requirements for additional school district consolidation.

II. A second major trend concerns the already burgeoning file of related litigation. Some legal scholars and educational finance

specialists are discussing strategies for extending the Serrano ruling downward into early childhood education, where it is provided by the state, and upward into junior college and community college education. The most obvious obstacle to these extensions of Serrano is the fact that the state does not require attendance to junior colleges or in early childhood educational institutions. However, the Federal courts have invoked the equal protection clause in voting rights and criminal rights cases where compulsory exercise of the right was not an issue.

Another class of related suits is emerging around the problem of how schools "sort" students. It is customary for schools to group students according to academic ability and grades. Frequently, such grouping practices result in de-facto racial and socio-economic segregation of students. Legal scholars are exploring ways of attacking such practices through equal protection litigation.

A third type of related litigation attacks unequal delivery of health and nutrition services to school children, where the state or its subdivisions provide such services. Research indicates children in poor health and who are malnourished learn less effectively than students in good health and who have good diets. If state-supported health care is provided in a discriminatory manner, then it may be subject to attack through the courts in a manner similar to Serrano.

A fourth type of related litigation attacks unequal property tax assessments. The assessment of real property in virtually every state is inequitable, haphazard, and subject to corruption. Kentucky, Florida, and other states have been required by courts in recent years to assess property at full market value, on grounds that their state constitutions required full assessment. Cases now pending in Texas and other states seek to bring the entire range of assessment practices under court scrutiny on grounds that equal protection and due process are violated by grossly unequal treatment of similar properties within a state and within local assessing districts.

A fifth type of related suit seeks to apply an equal protection doctrine to intro-district school expenditures. The case of Hobson vs. Hanson in Washington, D.C. has established a precedent for this type of case.

A sixth, and final, example of related litigation applies the equal protection doctrine to the delivery of municipal services. One precedent in this area is a unanimous three-judge Federal court decision requiring that municipal services in Shaw, Mississippi be provided in a non-discriminatory fashion.

III. I turn now to four probable Serrano consequences for the study of educational finance. First, increased state responsibility for

education and subsequent concern for educational productivity will require more accurate and valid measures of attainment. A generation of social scientists will gnash their teeth in attempts to evaluate the effects of educational resource allocations on pupil attainment. No single discipline commands the theoretical constructs or analytical tools necessary to untangle the complicated web of interactions between home, community, school, and child. The variables refuse to sit still and be examined. Researchers will need to draw upon learning theory from psychology (leavened by the fact that learning in school takes place in social groupings); social and anthropological theory regarding the interaction between culture and socialization; and economic analysis of educational inputs and outputs.

Questions of educational planning will constitute a second, related effect of the Serrano cases on the school finance field. Since World War II both European and underdeveloped nations have had considerable experience with systematic educational planning procedures, including projection of economic, social, and student needs, and analysis of alternate educational means of meeting those needs. Considerable intellectual and practical leadership in this field has come from international development organizations such as UNESCO, the Organization for European Cooperation and Development, and the World Bank. In contrast, educational planning in American states remains at a primitive level; but as state legislatures (with an increased investment in public education) demand increased educational effectiveness, educational planning is likely to improve.

A third probable effect of Serrano on school finance is increased attention to the methods used by advanced European nations and Japan to finance centrally their educational systems. School finance circles in the United States are remarkably parochial. Few individuals with substantive knowledge of and influence over educational finance decisions in America are knowledgeable about the structure and financing of government-supported elementary and secondary education in Europe and Japan. The problems facing American states in a post-Serrano world are directly analogous to problems with which European nations have wrestled for over a hundred years as their modern educational systems have emerged. Comparative study of educational finance systems during the 1970's will hopefully provide useful prespectives on problems of educational finance within the United States and indeed within individual states.

A fourth outgrowth of the Serrano cases for educational finance should be a recognition by educators and lawyers alike, that their futures are closely linked. Decisions with great significance for educational policies are being handed down by courts. Since Brown vs. Board of Education court decisions have profoundly affected education. I refer to reapportionment and church-state decisions

as well as to the subsequent desegregation cases. In addition to the Serrano cases, which are nominally in the school finance area, courts are now being asked to examine issues of teacher selection and promotion, and the citizenship rights of students. The importance of the judicial process in educational policy making goes apparently unnoticed in major schools of education, which, almost without exception, lack first class legal scholarship in their instructional and research programs. John Coons at Berkeley is one of the few prominent legal scholars in America who has a frequent and continuing involvement with educational policy, research, and training. At the same time, university programs for the preparation of educational administrators concentrate almost exclusively on administrative politics, occasionally on legislative politics, but almost never on the crucial role played by courts in the determination of educational policies. Training programs in all areas of education must pay increased attention to the changing role of law in public education.

In the field of public education and, in particular, in educational finance, the 1970's should be a fascinating decade.

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FINANCING FLORIDA SCHOOLS

I know that you have a good general working knowledge of our Florida Public School Finance Laws, but let me go back and retrace very quickly some of the events that started in 1963, which brought us to where we are now, some of the concerns and changes which may be made in our Public School Finance System over the next year or two. Back in 1963, there was a growing awareness that local property taxes related very directly not to the financing of all local governmental activities at the city-county level, but public schools as well. At that time, we were tremendously concerned with wide differences in the levels of assessment among many of our Florida counties.

In many school districts, the complaint was that the local tax assessor just didn't assess the property properly and as a result the schools, cities, and counties weren't getting the dollar yield that they should because of unusually low levels of assessment. So in 1963, the Florida Legislature passed a bill to define "just value" which was the term the Florida Constitution used. Up until that time, "just value" was what each local tax assessor thought just value was. We had in essence sixty-seven different definitions or understandings of just value.

If you had property that straddled a county line, it may be assessed at one level in one county and at a very different level in the adjoining county. In 1965, two years after the passage of this legislation, the Florida Supreme Court affirmed the decision of a Circuit Judge in Duval County in what has been referred to as the Schuler Case. In that case Judge William Durden, a Circuit Judge in Duval County, said that "just value" as referred to in the Florida Constitution and as defined by Legislative Act, was the same thing as "fair market value" or what you could get for your property in a fair and open sale and he required that the Duval County tax roll be substantially increased.

In the next several years, we began to have a wave of court ordered reassessments across Florida. In 1967, the Legislature was confronted by a group of local property taxpayers who had seen their values or assessments dramatically increased in the space of a very short time and general property tax bills in a few parts of the state had gone up dramatically. Now many people could go to these taxpayers and make a very scholarly argument that they were not being over-taxed and that their property tax bills were less than those of many other states, but those would have been very academic presentations because these people who had seen their property tax bills increased dramatically were convinced that

they were being gouged--they were just being called upon to pay unreasonably high local taxes. So we had a hue and cry around the State for property tax relief.

Also in 1967, we had a new Governor with a mandate from the people who challenged our legislature to make Florida number one in education and to also give local property tax relief and to do all of this without any new taxes. This was sort of a difficult assignment.

In 1968, we had a special session on education that you will recall. At that time, we increased the sales tax by 1%. We increased some other state excise taxes and we committed all of this monetary increase to improve financing for more adequate support for public education around Florida. We did another thing--we also felt that we needed at the same time to do something to assure some local property tax relief.

As we looked at the property tax, we found that it was first of all the most unfair and the most regressive tax Florida levies. It bore with greater weight on the lower income groups, people who didn't even have Homestead Exemption, who only rented, than any other group. It was our most regressive tax. Secondly, it was our least elastic tax. That is, it was one of the most difficult taxes that we administered. There was always a great deal of lag in the increase of local assessments and they just didn't keep up with the changes in the economic structure. In almost any economic scale of elasticity, property taxes are at the bottom end of the continuum, the Federal income taxes are at the top end and our state sales tax hits almost right in the middle as being almost a perfectly elastic tax. Some of the income taxes are more elastic, in other words, their tax yield increases more rapidly than does the increase in our Gross National Product or the general level of economic activity. But in Florida, our most elastic tax was the sales tax.

So we tried to shift a good part of the burden off on the state sales tax, to call upon the state to contribute substantially more to public education. But at the same time, we required that some of this money be used to effect reduction of local property taxes. So in 1968, we provided that no district could receive the increased state support if it levied more than 10 mills for local property taxes. In 1968, we endeavored to place both statutory and constitutional limits or caps on the use of local property taxes to force a shift in funding from local property taxes over to the broader, more elastic tax base of the state as a whole.

This was not accomplished, as you know, without some furor, but, nevertheless, it was accomplished. We placed a lid on local

property taxes which in many juristictions required a substantial reduction in local property taxes and then we scaled off local property taxes as an increased area of funding within an effort to shift the burden of funding to the state as a whole. Well, we got home and survived to some extent the furor of the statewide teachers strike, and in looking back on all of this, a number of us wanted to know where we hadn't done the right thing or what lessons we should learn for the future.

Among some of the school people that I have talked to, they said, "Well, we really appreciate what was done! Education had a substantial net gain in terms of dollars out of this whole affair which it needed very badly and although we are still far from being number one, it was helpful." But, in my area, some of my school people said, "The curious thing to us, though, is why is it that you gave some of the poor districts less money than you gave some of the wealthier districts, particularly with the property tax reductions, that this is the way it worked out." I had never heard that argument before and so I sent a list of questions to the Legislative Service Bureau, asking them to let me know what our spending was on a per student basis in all the Florida school districts from Federal funds, property tax funds, racetrack revenues and from the State MFP and general appropriations. I tried to get the whole pattern of funding throughout Florida. It took me a while to get it because records just weren't kept so as to easily give you that kind of information back in 1968-1969. But when I finally got it, I discovered that there were wide differences between districts in terms of the amount of money that they had to spend.

There appeared to be three primary disequalizing factors. The most serious one was that the local property tax base brought in different amounts of money in different districts. Let me give you a quick illustration: if you were to compare Pinellas County on the West Coast of Florida with Palm Beach County on the East Coast, if you were to take the number of students in the Palm Beach District or in both districts, divided the number of students into the number of dollars that one mill of local property taxes would produce, then multiply it by ten mills, which was the maximum amount that both districts could levy, you would find that, in Palm Beach, local property taxes provided about $4,000 to $5,000 more per instructional unit to support local schools than they did in Pinellas County. I am told that Florida's differences were not as great as those in a number of other states because of several reasons.

Number one, unlike many other states, we had a number of years ago consolidated school districts and this tended to spread the base. So that with only sixty-seven school districts, we had less variation than California, Texas, Illinois and a number of other states

that had from one thousand to twelve thousand school districts. But, we still found that the range was about ten to one. Glades County could bring in about one-tenth as much money with the same effort in terms of property taxes as could Gadsen. Generally, the more affluent counties tended to be coastal counties in the southwest and southeast part of the state. Some of us refer to it as the Golden Horseshoe. It starts really with Lee and Charlotte Counties and works on down around Collier and on up to the East Coast to Palm Beach County. There are one or two other counties that fit into that, one of which is Citrus County which is north of the Tampa Bay Area.

Now you want to know why the great variation in the amount of money that property taxes bring in. Simply because property in some areas is more valuable than it is in others when you apply the same standards of the assessments. If you own very valuable beach-front property in Dade County or Broward County or Palm Beach County, it is worth more and produces more money than a farm in Bradford County. It is as simple as that. Now Citrus County has a very large power generating plant that serves that area of Florida but only the tax rolls in Citrus County and not in Levy County or in Gilchrist County, or the counties that surround it. So that Citrus County combines excellent assessment with a very valuable contribution to its tax rolls to be one of the few more affluent counties in the northern part of the state. The difference in the yield of local property taxes was a big disequalizing factor. This means that the districts that got the extra money had higher teacher pay, a much better teacher-pupil ratio, and added a lot of other "frills" like kindergarten programs and other things. Now Pinellas is far from being one of the poor districts, but these counties had a big head start. Furthermore, they were able to increase their yield of state money, because the Minimum Foundation Program had in it a number of incentives to say that if you contribute certain local monies then the state will give matching monies to help you. But many of the poorer districts did not have the contribution to make at the local level to attract the extra state money. So the wealthier districts were generally those that were starting in kindergarten programs and getting the state money for that; were generally the districts that were hiring more rank II teachers and giving a greater pay supplement so they in turn increased their yield of monies from the state on a per-pupil basis and tended to aggravate slightly the inequalities existing among the districts.

A second factor relates to the fact that we don't distribute pupils evenly. Pinellas County now can be compared to Hillsborough County. In the last census Pinellas County had about 10,000 - 15,000 more

people but about 23,000 fewer children in their public school system. Charlotte County is one that, because of the demographic factors, has a lot of folks in the retired area who are not really wealthy but who are on the tax rolls, who are supporting schools but produce few if any children. This is a disequalization factor.

Another disequalizing effect was the distribution of the state racetrack money which we distributed equally to counties regardless of size and in most counties all or most of the money in turn was paid over to local school districts. In Dade County, their share of the racetrack money, which has now been capped at $412,000, was $1.20 per student in the Dade County System. In about a half a dozen other districts, it amounted to over $200 per student. Obviously, if you go to a smaller district, let's take the smallest in Gilchrist County with fewer than 700 students, and turn racetrack money over to that district it will produce a substantial yield. As a result, many of the smaller, poorer counties were able to take care of themselves because of the distribution of racetrack money. They were able to keep up and this took a little of the sting out of the difference in the property tax distribution. But, the larger the county, the less help came from racetrack revenue. So, when you begin to get intermediate size counties and then larger districts like Duval, Hillsborough and a number of others, your racetrack money was no help--you had a tremendous number of pupils per capita and you had a depressed or less valuable real estate base for your property taxes and you were in a real hole. As a result, many of these districts took all of the units of work nailed down to put that money in the pot to try to keep teacher pay up to a competitive level, and tended to have reasonable pupil-teacher ratios and few of the other essentials of a good system of public education.

In 1969, we became aware of this and legislation was introduced to try to provide increased state support for the poorer districts. The legislation failed to pass. In fact, it failed to even come out of the committee but it did serve an educational purpose. Sometimes it takes two or three sessions before people understand what they are dealing with well enough to know what they ought to do. It wasn't until 1970 that we committed Florida to a four-year phase-in program of equalizing public school finance. We did this in 1970, before any of us ever heard of the Serrano Case or the Rodriguez Case or any of the others. In Florida, the move toward equalization of public school finances went through the Legislature and not through the court.

What did we do in 1970? I think you are familiar with it. What we did was this. We said we were going to increase required local effort in four steps. We are going to increase it one mill per year. At that time, the Minimum Foundation Program required three mills of required local effort. In each district you should levy

three mills, or we are going to subtract from your state allocations of MFP money the amount of money that three mills would bring in your district. So we said we would increase the required local effort one mill at a time and take it from three mills to seven mills. Now if that is all that we would have done, all we would have done would have saved the State a lot of money not given the districts. In fact, we would have substantially decreased their state support.

So at the same time we are going to increase the state allocation for local schools by $1,100 per instructional unit so that every time required local effort increased by one mill, we increased state MFP funds by $1,100 per instructional unit. We put this in the other current expense category giving the local school districts the maximum amount of flexibility in deciding how the money should be used. On that exchange, if you were a poor county you got a rather good increase because the number of instructional units multiplied by $1,100 totaled much more than the one mill deduction to be subtracted from it, i.e., if you were a poor county there should be a pretty good balance. So, most of the increased state support went to the poorer counties. The $1,100 figure was selected because this was the amount required to give every Florida School District at least some net increase in state dollars. Then, for the maybe three or four counties that would not net anything on that exchange, we put in a no-loss proviso that kept them from losing any state money.

What we tried to do by spreading the cost over a four-year period was to equalize on a rising tide of increased state support so the more affluent school districts would not have to cut back in terms of teachers' pay or anything else. We set goals for the biggest increase to go first to the poorest counties. We started that program in 1970.

In 1971, which was a tight year in terms of budget, a lot of people began to wonder if we could really afford this equalization program and a number of us, who said our present system is going to be held unconstitutional without it, were still not considered to speak with very much authority on this because no court agreed with us. We cut back to half speed so in 1971, instead of going to the next one mill or $1,100, we went to half a mill at $550.

This year, 1972, with the passage of the corporate income tax, once again the state got into good enough fiscal posture where we could get back on schedule and we added a mill and a half and $1,650 per instructional unit and moved back up.

We also did a couple of other things. In 1970 when we started this,

some of our friends in the more affluent counties said, "Look, the reason that many of these poor counties are poor is not because they are really poor, but because their tax assessors are not doing the job right. If you want us in the rich counties where we are doing a good job of assessing to help you with the equalization program, then we have to be in a position where we are sure that you are doing a good job on assessment because we do not want a state system that rewards poor assessment."

The question was, how do we do this? We had sixty-seven tax assessors in Florida who do not want interfering with their constitutional prerogatives. So we said that we would call upon the Auditor General of Florida, who was elected by the Legislature, to give us an annual report based on ratio studies in the different counties. Then instead of subtracting actual millage, we would subtract the amount of money that should be realized by assessment at just value. So the district is going to have a 100% mill deducted whether in fact it is actually levying it or not. If it begins to shirk on the assessment efforts it is not going to cost the taxpayers around the state; it is going to cost the taxpayers in that district that elected that tax assessor. That in essence is the genesis of that idea. Many of us did not particularly like this idea. In some ways we are holding the wrong hostages for this but we were told it was the price of admission for an equalization program so we supported it. This became part of the law at the same time so we now have the Auditor General conducting ratio studies and a second study is now is the courts to determine whether or not it was a valid study.

The amount of money the district gets depends to large extent on what the Auditor General finds their level of assessment to be. If it's low, the millage subtracted won't be their actual millage but millage projected out really to 90% of just value rather than 100% because there has been some softening in some ways to remove the harshest effect. So that is where we are now. Next year we should go from six mills to seven mills required local effort and go up another $1,100 per instructional unit to complete our statutory program. Thereafter annual increases are to be based on increases in the cost of living and Florida will be one of the top four or five states in terms of an equalized system of public school finance. However, we have found these problems.

One, the Auditor General ratio studies have indicated to us that one of our beliefs was completely wrong. Generally it was not the poorer counties who were under assessed, but the richer counties, and the gap between rich and poor was much greater than we ever imagined. This had lead to a substantial increase in required local effort in some of the richer counties so the

$1,100 per instructional unit is no longer adequate to let these districts have any kind of a net increase in a number of them. In fact, a number of them are just staying even in terms of state money with the whole harmless or no loss provisos so that the equalization shoe begins to fit too tightly in some districts like Dade. They find that their increases are at a greatly decreased level and the shoe fits very tightly there, so there is some feeling that the other current expense allocation is going to have to be increased one way or another, so that the more affluent districts get some growth money.

Secondly, we have been told that it is not sufficient simply to equalize dollars per student. One of the Justices of the United States Supreme Court in an earlier case on a different subject said, "nothing is more unequal than the equal treatment of unequals." To some extent we are getting past that, but a number of our colleagues say that if you just give equal dollars now, this ignores the fact that there are differences in the cost of living in a number of districts. Some districts should have more dollars on a per student basis because of greater costs, for housing, for food and everything else. Then others say that you also assume an equality of education need. You need a system that gives more money because of greater educational needs. These are a couple of the aspects of the program that we are coming to grips with. We have asked the Department of Administration to take a very rudimentary one-year approach that we made to the identification of district cost differences and to give us a much more thorough and reliable study as to what these differences are and how we could deal with them in our funding formula. Also, we are trying to identify, to the extent we have not already done it in the MFP, differences in educational needs. We have already done it to some extent in providing greater money for exceptional children and some other categories than we do for the average student.

Our equalization program is still far from perfect and needs refining. On the district cost difference argument though, you get several schools of thought. One group feels that this is just another elaborate rationalization on the part of some people of some districts to try to get more than their fair share of the money and they want identification and it is properly weighted. Then there are others who feel that a much higher priority needs to be based on educational need and that district cost differences are going to tend to balance out.

For instance, it may cost more to pay rent, to buy a house or to buy groceries in Miami than it does in Starke. On the other hand, if you are competing in the state-wide or even the national teachers

market, it might be a lot easier to recruit a new teacher for Ft. Lauderdale or some coastal county that has an urban population and nice beaches, than it is to get people to go to other rural places in the interior part of the state if they are not people who were born and brought up there and have some particular interest in rural living.

So there is a great debate going on about whether or not there really are cost differences and how we ought to recognize or deal with them. I suspect this will be debated to some length the next session.

That gives you a real quick overview of how we got where we are and maybe what is going to be happening.

As you know, our equalization program leaves three mills unequalized and originally these mills were unequalized because we recognized that some districts would want to do more than others and that in some there would be greater cost differences. As a result, we felt that there should be some latitude in that we should not have a perfect 100% equalization program. It is now a question of as to whether or not we have gone far enough and whether our system is equalized enough to be immunized from successful court assault. There is some feeling it should go a little bit further. The National Council of State Governments and the Education Commission of the State variously suggested that about 90% of your public school funding ought to be equalized, and that the margin of discretion of local districts ought to be rather slight. We have not gone nearly that far.

Dr. Kern Alexander
Associate Director
National Educational
Finance Project

THE EDUCATIONAL FINANCE PROJECT

The National Education Finance Project is the effort of the U.S. Office of Education in cooperation with State Departments of Education to assess the school finance picture. The project started in 1968 and is a four-year study. The U.S. Office of Education just last month funded it for two more years in order to implement or attempt to implement some of the alternative recommendations of the project. The project made some assumptions and our entire study is based on these. I would like to briefly give you the assumptions we started out with.

First we got together all the experts we knew of in the area of economic and school finance. The assumptions that this group came up with, or the premises, the bases on which we based our entire effort, are these:

Education is a responsibility of the state level of government. Education is not a responsibility of the local level of government other than the fact that the state gives the local school districts their power through legislation and any acts beyond that granted to them by the state are, of course, outside the scope of educational operations.

Our second premise: the opportunity to obtain a public education as appropriate with individual needs of the children should be substantially equal within the state. The funds available for education should be a function of the total wealth of the state. Children and youth vary widely in their educational needs. There are many different types of needs; and, therefore, there must be different types of programs if these children are to be provided with equal educational opportunities. We made the assumptions that the programs have different costs and I will show you in a moment where we pursued that. Public education should tend to remove the barriers between caste and class and promote social mobility with regard to religion, race, economic and social conditions.

We did not recommend, and as a fact we opposed throughout the study, aid to private and parochial schools. Decisions concerning education should be made at the lowest level of government that can efficiently make the decision. While education is a state function, we felt that many decisions could be more efficiently made at the local level. Many decisions now being made at the Federal level could be more efficiently made at the state level.

Our final premise was that there are two critical factors facing educational financing, and they are equal access to dollars and equal access to programs. In other words, if you simply equalize as the courts have recommended in the Rodriguez decision from Texas now going before the United States Supreme Court and the Serrano Case in California, if you only have simple fiscal equa - ization among school districts, this will not meet the needs of the children having various educational deficiencies requiring high cost special educational programs.

Our design for the study was administered through the Florida Department of Education in cooperation with nine state education agencies at first. Later on all fifty states joined. We focused on four primary aspects. The dimensions of educational need begin with the basic assumption that educational needs of children vary. What are the dimensions of educational needs? What are the economic factors facing education? Is education an investment in people? Is education an investment in the economy?

We published the results of those studies and we had the best economists we could find work with us on the economic aspects affecting the financing of education, educational needs, program costs of special effort, and the status of current school finance programs. We said that we could not devise alternative models for financing education if we didn't first know what the status was in all fifty states.

With regard to educational needs, we identified what we considered to be the high-cost programs: early childhood; exceptional children: handicapped children; culturally deprived or compensatory education programs; and vocational education. How do these compare with basic elementary and secondary costs as well as community junior college, adult and continuing education costs? In addition, we had several areas that shot across those boundaries. These were: school district organization; school facilities; the fiscal capacity or equal access to dollars and programs. Pupil transportation was a large cost item which we had to examine separately.

We did satellite studies across the United States at eleven institutions including Florida State. All state departments of education were quite cooperative in this effort and assisted us in going to districts and getting local information. We projected all our recommendations, costs and needs through 1980. We published these in five volumes starting with the dimensions of educational needs. The second volume was economic factors. Volume three was planning to finance education. Volume four was the status studies and the fifth volume was our final recommendations for alternative models.

Our basic assumption, of course, was that we were dealing with the provision of equal educational opportunities and also that all children have equal access to educational programs and dollars. In looking at the satellite studies in the program areas we asked these key questions: What are the perameters of educational needs? When you are studying the financing of education you first have to find out what you are financing so we had to describe the perameters of educational programs. We asked the question, do children have different educational needs? Do these needs vary among school districts and states? How can we best meet these needs? Do the costs vary among different educational programs? What are the high cost programs? If you are allocating money from the state level or the federal level, you must identify the high cost programs. How much more do they cost than regular programs is the key question.

We looked at the programs I just summarized for you. We looked at the best practice nationwide. We devised forms, we sent people out to schools across the country in these program areas, and we costed out their educational programs. We costed out the programs considered to be best practice by the experts in each area. In other words, we had a panel of handicapped children experts from the U.S. Office of Education, from the universities, and from local school districts to recommend to us an array of best practice school districts. We took best practices and costed out those programs in an attempt to find out whether or not the best practice for handicapped children costs more than regular programs.

Well, we came up with a "kind of" result. We don't recommend this necessarily to you. We say that if you are financing from the state level and you don't have a guide to go by, this is what the NSP found nationwide constitutes best practice.

The costs for grades one through six we used as our basic measure for comparison of programs. Programs for three and four year olds, we found were allocated 1.4 times as much money as for grades one through six. We found the kindergarten programs for some reason cost a little less than programs for three and four year olds. We have some theories on that, but this is what we found in best practice.

Grades seven through nine were more than one through six, grades ten through twelve even greater. We found such things as labs added to the cost. Of course, in establishing legislation we're not at all sure that a legislature should follow this pattern just because grades ten through twelve now in best practice are spending more per pupil per program. We think that a legislature or a state education agency should intervene as whether this is appropriate investment and ask the question, is that an appropriate

investment?

We may be much better off if we invested more in grades one through six and proportionally less in ten through twelve. Now our economics studies indicated that as far as an investment in people, an investment in the economy, the state gets a much greater return on its dollar if it invests the dollar in elementary school than it does in junior high and senior high and college. They found that the lowest return on the educational dollar is derived from an investment in higher education.

Handicapped children programs were found to be receiving 1.8 times as much money per child as that allocated for grades one through six. For vocational education programs we came up with the same ratio as found for compensatory education, about two to one. This is just a rough estimate. We had to pull together our costs and divide that by the number of pupils among suburbs, rural areas, and cities.

For handicapped children, we looked at prevalence rates of these programs. If the prevalence rates are the same among school districts for handicapped children, for example, there is no need to treat them differently at the state level. But we found the prevalence rates did vary somewhat among school districts. For a unit as large as a state, we found that the total percent of handicapped children ran about 9% of all children.

The dollar implications of these cost differentials, if you include them among the programs, look something like this. Let us assume that in grade one through six we have a program of minimum state aid formula which says that we are providing $500.

If we use the cost differnetials we found as best practice in terms of dollars it would mean that the state would allocate $580 per pupil to grades seven through twelve--for grades ten through twelve, $700 per pupil. But look at what it means in compensatory education. For every child, by applying the cost differential you are giving the child twice as much as you do the regular child in grades one through six. In other words, if you have a high incidence of compensatory children, as some city areas and some rural areas do, you are allocating twice as much per pupil for handicapped children and you are allowing almost twice as much for vocational education. We are saying here that you can't simply fiscally equalize. You must take into account educational needs and apply the high costs, and you see that this would cause a substantial variation in the amount of monies received by local school districts.

In relating the National Educational Finance Project results to these court decisions I think this might help in the explanation of our recommendations. When our project started we knew the court

decisions were coming along. As a matter of fact, some of us assisted in preparation of the court cases in some of the other states. Florida had one of the earlier cases as you all know. We viewed the court decisions in three generations.

We said first of all, you had the traditional type of case where the taxpayer sued to prevent his money from being redistributed to another school district. In other words, you, in a school district wealthy in equalized assessed valuation of property per pupil, sue to prevent the state from charging back in the foundation program funds against your district to redistribute to a poorer school district.

The courts uniformly held that taxpayers could not prevent the state from distributing the resources in any manner it saw fit. The taxpayer could not prevent equalization among school districts. The courts went one step further, and said that they would not intervene with the legislature in whatever way they decided to distribute the money, although equalization was perfectly all right with the courts. The more recent cases have not involved the taxpayer but have been children claiming denial of equal education. The taxpayer claimed denial of equal protection under the 14th amendment. He also claimed denial of his constitutional rights under the equality and uniformity provisions of the state constitutions. You have such provision in Florida.

In each of these instances the courts held, of course, that they would not intervene. But now, we have the second and third generations of decisions, where children themselves have sued to force the legislature to redistribute the resources in a manner which would provide for equal educational opportunities. The courts have looked at this very differently. The leading case of this type is the Serrano case from California. The first case was Hargrave vs. Kirk from Florida where they said in fact that a state provision to limit the local millage was unconstitutional. They first applied the equal protection clause in this case. The U.S. Supreme Court vacated and remanded the Florida case back for more information, not quite understanding it. The California Supreme Court followed that case and held that a child's education cannot be a function of wealth and equal access to dollars cannot be denied.

There are two constitutional standards: first there is the old standard of rational relationship. They say that all the legislature needs to show is a rational relationship between the way it distributes the money and the aggrieved party, claiming equal denial of education. This is just a simple rational relationship

which is a very low standard as far as the court is concerned. It is under that standard that they have upheld the distribution of funds in other cases. But this California Supreme Court said that they will not use the rational relationship standards. They will use a compelling interest standard. This standard puts the burden of proof on the state legislature who must show what they are doing is not unconstitutional. Under rational relationship standard, the plaintiff had to show that what the legislature was doing was unconstitutional. The burden of proof has shifted now. The legislature must prove that it is not acting unconstitutionally.

In that instance, they said that education is a fundamental interest just as life, liberty, and property are fundamental interests, and that such a fundamental interest cannot be denied without the legislature showing some need, some compelling state need. To complicate the situation and to assist the plaintiff in California, they pointed out that here the legislature was classifying children on the basis of wealth just as you do here in the State of Florida. You classify the children among the school districts on the basis of the wealth of the school district. In California, it is much worse than Florida, because they have so many more school districts. If you are dealing with a fundamental interest such as education, any time that the state or the government classifies people with such an interest on the basis of wealth the court said that they would apply strict scrutiny or they would carefully analyze the statute. They did carefully analyze the California Statute and they held it to be unconstitutional. That was followed by the Rodriguez Case in Texas which said that education cannot be a function of wealth. They added two new words and said the state must be fiscally neutral. It must treat all children the same. The Rodriguez decision is coming before the Supreme Court in the fall session and this could change the system of financing in every state, including Florida.

The State of Florida in 1971 has $868 per pupil, averaged across the state. The question is, does the state equalize among the districts? Even in Florida, with a pretty good Minimum Foundation Program, there is a variation between the poorest and the wealthiest districts in terms of revenues per pupil. Would the Court permit such a system to stand? If the Court strictly interprets the Rodriguez case, it would say that Florida is not being fiscally neutral; that education is still a foundation of wealth.

In per pupil terms the variation of assessed valuation of property among the school districts in Florida is about nine to one. Local dollars alone provide you with that much variation. The addition of state dollars reduces this substantially, but education is still a function of wealth.

Now some people will say that those poor districts don't put forth any effort. But that is not true and they didn't find it to be true in California or Texas. Notice that in Florida, Glades County (the wealthiest county) had a lower millage rate. In terms of effort, (local revenues per pupil divided by the assessed evaluation of property) Glades' effort is less than the poorest's and that there is not much of a pattern between effort and wealth. A poor district is just as likely to put up a high effort as a wealthy district. They found this to be true in most states. Some states will vary but Florida doesn't. The wealth variation in Florida is only 9 to 1 between the richest and poorest. In Illinois it is 8,000 to 1; in California is is 1,000 to 1; in Texas they have a wealth ratio of 85 to 1. You can see that the equalization problem in those states is much greater because of the lack of school district organization.

What are the alternatives in terms of state school financing? One is state assumption, financing the whole bundle from the state level. Another is total charge-back, levying a rate locally and taking that local effort into account in the state foundation program. Still another alternative would be a percentage equalizing, distributing monies to equalize everybody based on their percent of wealth of the poorest to the richest in the state. Then of course you can describe an adequate program in terms of educational needs and distribute the dollars simply on the notion of educational needs either on the state level or with full fiscal equalization on the local districts.

Let's assume that here in the state of Florida, we were to finance our educational programs entirely from local money with no state dollars. For purposes of illustration, we set up a prototype state which had 32 school districts and a seven to one wealth variation instead of a nine to one which Florida has, but from this you can get a pretty good picture of how it is in Florida.

Let us assume that we have an 800 million dollar state education program which we are going to equalize without additional expenditure. Obtaining all the money at the local level would create a revenue variation between districts of seven to one. In terms of dollars the poor district would have $200 per pupil against $1,400 per pupil for the wealthier district. This would obviously be unconsititutional under either Rodriguez or Serrano. We recommended about what we think the court will eventually come to and that is total state aid.

Now, let's take our same 800 million dollar program - we are not adding any money at the state or local level; we are just distributing the money in a little different manner.

If we grant about two-thirds of the 800 million dollars from the state level without taking into account the wealth of the local districts we would find that we still have 12 million less locally. This is about the picture you would have in the state of Florida if you don't have a minimum foundation program (speaker refers to illustration) and you just distributed the money on a flat bas[illegible] to the local shcool district, per pupil. Even without taking the wealth of the local school districts into account and by just distributing two-thirds of the money from the state level, look at the variation: $450-$900. You have a two to one variation instead of a seven to one and we still haven't taken wealth into account.

Still using the same 800 million dollar model this is what that looks like for selected districts to equalize the same local money, 12 mills total (here in Florida you have 10 mills). We will charge back against the foundation program 5 mills. Now that simply means that you require local districts to levy it and it is subtracted out of the total in the foundation program. Five mills charged back then provides 7 mills of local leeway. You have reduced the disparity among the districts $500 to $750.

There are some problems inherent in this formula although we think with some modification it could be used.

Here is a formula I would recommend for the state of Florida, using the charge-back for the Florida Foundation Program. In the state of Florida, you are scheduled by the legislature to charge back seven mills of the total ten mills that you now locally levy. That only leaves three mills of local leeway which disequalizes. Let's say you equalize out of seven mills; you charge back seven mills, the state fully equalizes that.

Let's say we don't trust the effort of the local people to decide the educational level of the children. We set up a state-mandated minimum, just as you now have in the Florida MFP. We take into account those educational needs and the cost differential I was talking about. Then, you charge back seven mills, leaving only three mills local leeway. That three mills must be equalized, and we would percentage-equalize the three mills.

For the purpose of illustration, let us use another state and say that the districts in the state would be allowed to levy up to a total of twenty mills. Ten mills would be the minimum local effort required of each district. Each district would be charged back by the state so that they would receive the same base figure for their required ten mills levy. There would be no required additional local effort, but should a district choose to make additional effort the

state will fiscally equalize this effort so that mill for mill, all districts will receive the same per pupil money for their additional effort. This plan allows discretion locally in that the districts may choose to levy between ten and twenty mills, but the difference in revenue received is based on local discretion rather than local wealth. This offers an alternative which is a constitutional alternative and would be consistent with the recommendations of the National Educational Finance Project in that wealth should not determine the child's education.

(Ed's note: Dr. Alexander's visuals were not available for reproduction. For details of his equalization models, see Johns, Alexander and Jordan, Financing Education, Fiscal and Legal Alternatives (Merrill, c1972).

Mr. John Wheeler
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The Florida Department of Education

COMPREHENSIVE EDUCATIONAL PLANNING

Before any new law is passed, there is usually a series of events which occur or a set of conditions that exist that indicate the need for the new law. This is just as true in public education as in all other public endeavors in our society.

A rather vocal expression regarding the cost of public education in recent years has been evidenced by the failure of numerous local bond issues. Our State Legislature, faced with increased demands for funds from most state agencies, has had to examine more closely than ever before the cost of public education.

Faced with these circumstances and a recognition of the fact that the public is demanding more responsible accountability on the part of educators regarding "what we are doing" and "what will it cost," the Florida Legislature in 1968 placed the following responsibilities on the Commissioner of Education:

> "The Commissioner shall expand the capability of the Department in planning the state's strategy for effecting constructive change and providing and coordinating creative services necessary to achieve greater quality."
>
> "The Commissioner shall utilize all appropriate modern management tools, techniques, and practices which will cause the state's educational program to be more effective and provide the greatest economies in the management and operation of the state's system of education."

These charges to the Commissioner are, of course, charges to all of us.

In thinking about planning a strategy for change, these are several points that need emphasizing:

1. "Effective change must be carefully and systematically planned...
2. Much educational change can "just happen" but the most needed change must be "made" to happen...
3. Planning--by itself--will never do more than produce plans...
4. Adequate planning requires carefully prepared procedures for implementation and follow through...
5. There really is no plan until there is full commitment of the resources necessary to carry out the plan..."

A reexamination of the roles to be played at various levels of the educational system if effective constructive change is to occur

resulted in the adoption, on August 19, 1969, of the following nine statements which describe the Role of the State in Education:

1. To establish state-wide educational objectives.
2. To establish objectives which shall receive highest priority for given time periods.
3. To establish a sound program of financial support.
4. To provide efficient coordination and distribution of funds.
5. To establish minimum standards for achievement and quality control.
6. To assist localities in evaluating results.
7. To develop a good information system on the facts and conditions of education.
8. To provide incentive to local school systems and institutions to go beyond minimum performance.
9. To make available to local school systems consultative services which they cannot reasonably provide from their own resources.

It is interesting to note that six of these statements relate to the establishment of objectives and evaluation, two relate to the financial support of education and one relates to services.

This new position regarding the role of the state in education mandated a revised posture for the Department of Education in terms of its leadership function:

> "To provide greater flexibility to those who operate educational programs, but at the same time make them more accountable for the results."

This modification in the leadership function of the state education agency is further reflected in the following mission statement:

> "The mission of the Department of Education is to be responsive to, and responsible for, improved policy at the federal, state, and local levels."

As indicated earlier, accountability in education is in great demand. This being true, let's establish a working definition of the term accountability and also ascertain what we are to be accountable for. The following explanation of a way to arrive at increased accountability is directed at all of us at various levels of managerial responsibility:

1. A working definition:
   "A process of explaining the utilization of resources in terms of their contributions to the attainment of desired results."
2. Resources include:

Time
Space
Materials
Personnel
Money

3. Rationale:
"When educational managers are expected to explain resource utilization in terms of desired results, they will be encouraged to make their programs more effective and more productive."

Needless to say, certain conditions are necessary for educational accountability:

"1. There must be a partnership in which one party has authority to hold another party responsible.
2. There must be an objective stated in measurable terms.
3. Responsibility for achieving the objective must be definitely assigned.
4. The constraints and conditions under which the responsibility is to be carried out must be specified."

If maximum benefits in education are to be attained, there is still another set of conditions which must be met. "Educational managers must:

1. Have access to techniques and procedures for analyzing and explaining resource utilization and educational results.
2. Master techniques and procedures for analyzing and explaining resource utilization and educational results.
3. Have control over their allocated resources so that uses of these resources can be modified when the desired results are not being attained."

You will recall it was pointed out earlier that mandated by the Legislature in 1968 was: An increased capacity for planning a state strategy to bring about constructive change, to provide and coordinate creative services needed for greater quality, to use modern management tools and to develop practices that will make education in Florida more effective and achieve greater economy.

In an effort to comply with legislative mandate but more important to meet the needs of the rapidly growing enterprise of public education in terms of the product it is expected to produce and in terms of its mushrooming cost, a new state level strategy for improving education has evolved. It can be summarized as follows:

"1. Clarifying goals and objectives.
2. Analyzing and evaluating educational programs.

3. Generating alternatives to encourage self-renewal."

Specific objectives for the Florida system of education have also been established. These are:

1. Improved educational management techniques by the end of 1972.
2. A restructure of teacher training by the end of 1974
3. Mastery of basic skills by every child enrolled in elementary school by the end of 1976.

Goals for Education in Florida were adopted in April of 1971. I'm sure you are familiar with "the little red book" which contains the goals for student development in the state and the organizational goals for the system. Arriving at these goals is a major step in implementing the new state strategy.

The Plan for Educational Assessment in Florida, approved in March of 1971 is another major step toward implementing the new state strategy.

A review of recent major State Educational Policy Decisions may be helpful at this point. From 1938-1968 the role of the State in Education was basically a regulatory function in which standards were set and the state more or less supervised education to see that the law was observed and the regulations of the State Board were met. In 1968 however, as I indicated earlier, things began to change. What I have shared with you up to this point in this presentation has been some of the procedural steps taken by the state as a result of the following policy decisions:

1968 - State Strategy for Constructive Changes
1969 - Developmental Capital Educational R & D
1970 - Assessment of Student Progress
1971 - Educational Accountability Act
1972 - School Code Revision

The passage of Senate Bill 960 was, in fact, a major revision of the State School Code or Statutes. This significant step in 1972 is the beginning of the removal of many of the constraints which inhibit constructive change in the education system. The School Code Revision supports the working definition of accountability cited earlier in that certain regulatory responsibilities of the State Education Agency are reduced or entirely removed.

A planning requirement, which has build-in flexibility, was placed on the school districts by the addition of Section 236.02(9) Florida Statutes. This new planning requirement is:

Each school board shall...

1. Maintain an on-going systematic evaluation of the educational program needs in that district, and

2. Develop a comprehensive annual and long-time plan for meeting the needs both on an annual and long-range basis.

as perscribed by 230.33(5) and 230.23(3) Florida Statutes.

What are the implications of this new law? What is different? What does it mean?

1. Each school board must develop and use a comprehensive education plan in order to be eligible to participate in the MFP.
2. The district comprehensive plan must contain district goals and objectives which are consistent with state goals for education.
3. Each school board shall submit annually to the Department of Education that district's annual and long-time plan.
4. The State Board of Education shall prescribe regulations to be followed by the district in submitting its plans.
5. The Department of Education shall review each district plan and make recommendations for improvement to the district school board.

The initial year of implementation, 1972-73, of this new law finds us, by design, without State Board Regulations and specific Guidelines. It was felt that a developmental approach with representative involvement of professionals and laymen in determining what the regulations and guidelines ought to be would be the best approach to take.

Therefore, the Commissioner has appointed a Task Force to recommend guidelines which districts will use to improve their planning process and to develop their long and short-range plans. This Task Force will make its recommendations to the State Board of Education and the Commissioner by October 1, 1972. As soon as possible after this date, districts will receive copies of the SBE Regulation governing the implementation of Section 236.02(9) and Guidelines for use in developing both a "planning process" and "a comprehensive plan."

This presentation has not been directed solely at 'district' comprehensive planning. I have used this occasion to share with you some information about developments and plans at the state level which impinge upon local educational planning. If we are all to feel that we are "part of the team," from the classroom teacher to the State Board of Education, then we must communicate with each other more frequently and more thoroughly.

Hopefully, you have a better idea now of the "why" of District Comprehensive Educational Planning. The "how" must evolve as together we do more effectively what we know to do as professional educators and as we learn more effective and efficient ways to implement programs and services in our communities.

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MEDIA AND TECHNOLOGY IN THE CONTEMPORARY LIBRARY: Change by Evolution or Revolution

The people who spend time looking at futures eventually get around to talking about the library of tomorrow. The harangue usually begins with illustrations of all the technological advances we have made in our society and yet, according to these critics, the library is still operating with 18th century techniques. Then comes the catalogs of media and technology which are available today or are just on the horizon. The litany usually builds to a crescendo when librarians are admonished to "get with it" and to join the 20th century. The implication is that if media and technology are added to libraries, we will see a new ascendency of the library to the ethereal realms of business, industry, the military, and other forward looking and technologically advanced segments of our society.

If we believed all of this diatribe and acted upon the suggestions of the visionaries, we would indeed have a revolutionary library with a computer-based information system, cathode ray display terminals, microform storage with immediate print-out options, shelves of electronic video recorder cartridges ready to be used in the library or to be checked out for home use, interconnecting data networks which provide access to information in many parts of the country and perhaps the world and so on. These technologies are indeed revolutionary, especially when they are all put in the same package.

There is no doubt in the minds of many present day educators that effective use of many kinds of print and non-print media is needed if people are to learn. Books, films, recordings, transparencies, teaching programs, and other "software" are seen as essential. The same is true about the various forms of "hardware" necessary to the use of the "software". That is what makes the revolutionary library even more revolutionary: the fact that all of these technological devices and systems currently exist and can be purchased today. The library of tomorrow is quite possible today. WHAT ARE WE WAITING FOR? Something quite basic is required: a statement of PHILOSOPHY -- a set of objectives, and a definition of the clientele which the library will serve.

Have we not been this route before? Yes and No. There has been a superficial attempt to prepare statements for catalogs, brochures, and other forms of publicity. But stop for a minute and think of all the futuristic statements you have heard or read about what

libraries ought to be doing and you will realize that, for the most part, in these statements all libraries are grouped together, and that only seldom are distinctions drawn among the various types of libraries that serve different types of people. There are too many types of libraries, attempting to serve too many types of audiences, to use one gross generalization about technology to cover all of them. Of prime concern are the information needs of the various audiences.

With a definition of information needs, OBJECTIVES can be established. Objectives, as I see them, are not goals -- the kinds of general statements which say everything but mean nothing. While the goal of providing free access to information to all people is admirable, it is difficult to determine when and to what degree the goal is being reached. Much more helpful is the kind of statement which says that this library will systematically collect and acquire information, classify it, store it, and, upon demand retrieve it and assist in adapting it to the use to be made of the information.

Once the people to be served are identified, their information needs determined, and the objectives of the library defined, it is appropriate to ask the question: "Why?" Why does this library exist? Why should it serve these people? Why should these objectives be reached?

What has all of this to do with media and technology? A lot! I cannot advise any library to consider offering media services or to go to a technological base without knowing WHO is being served, with WHAT information needs, for WHAT PURPOSE and WHY. It seems like a rather simple request to put these concerns on the table before deciding what moves to make in regard to media and technology. Yet we, Americans that we are, tend to look at the new products and ask ourselves: "How might we use that?" Or, we tend to believe that because something is old, it is obsolete and there is something far better to replace it.

Ask yourself: Whom are we trying to serve? (And what is the priority, given that we are trying to serve many audiences?)

What are their information needs?

How can these needs be fulfilled?

Why do we exist as a library?

The results of such introspection may be disastrous, but they will provide a road map for your decision making.

Let's assume that we do know where we are going; that our philosophy is clear; that our objectives are defined; and that our primary audiences are defined. What, then, about media and technology? What sort of evolutionary role do they play in the library's growth? Note that I have separated media from technology. To understand the distinction of each is to clarify the role of each in the library.

MEDIA is defined as "the graphic, photographic, electronic, or mechanical means for arresting, processing, and reconstructing visual or verbal information." Every medium is a means to a goal or end. When considering instructional media, one must distinguish between the MATERIALS and the EQUIPMENT, since both are usually implied when media are discussed. The MATERIAL itself can exist in several formats, e.g. a still picture may be printed in a textbook; it may appear in a filmstrip or on a slide; it may be transferred to an overhead transparency; or placed on a bulletin board as a print. The picture is the material; the projector which displays it or the bulletin board on which it is placed is the EQUIPMENT. The material and equipment together constitute the medium.

TECHNOLOGY is a systematic body of facts and principles related to a practical and useful end. The word "technology" (from the Latin texere, to weave or construct) does not necessarily mean the use of machines as many seem to think. It refers to the practical use of scientific knowledge. The French sociologist, Jacques Ellul, says that "It is the machine which is now entirely dependent upon technique, and the machine represents only a small part of technique." The techniques of effective teaching, for example, comprise technology.

Following these definitions, media become the information sources and, in my opinion, belong in the library. When a user is seeking information, he usually does not care about the format in which it may be stored. Media, as extensions of man's knowledge, are legitimate repositories of information and permit users to have access to more information than ever before in the history of man.

TECHNOLOGY becomes a management tool to help the librarian get his job done more efficiently and effectively. While all of the effort is ultimately directed at the user, the prime user of technology in the library is the librarian. In analyzing needs we should be concerned with the human use of human resources in all phases of operation. We need to be concerned with the

repetitive tasks performed by professional personnel with a view toward designing systems whereby technology might take over the bulk of these operations. Professional staff need to spend their time in person-to-person contact with clientele who are in search of knowledge and information: teachers, students, library patrons.

Additional quantities of audiovisual media will be added to collections, particularly the moving image. These may appear as traditional 8mm and 16mm films at first but will probably become video tapes. The films and tapes will ultimately end up in cartridges very much like the 8mm cartridges and tape cassettes of today. There will be spaces to accommodate individual users as well as opportunities to check out these materials for use elsewhere. After we clear copyright problems, we will see the library routinely recording selected television programs off-the-air and making these available immediately to users.

We will see a complete integration of all sources of information in one card catalog, which will probably be computer-based. A person seeking information will be able to discover all information available to him in all media with a simple key word request.

Most of the projections still are based on a user coming to the library. The library will become "communications central", but users will be located in dormitories, homes, offices, and other buildings. Requests for information will be dialed in and the user will be able to obtain the necessary information from the equipment which is available. Already dial-access of audio information is being used daily on dozens of college campuses across the nation. Video dial access is right behind. Time-sharing computer consoles are printing out information on teletype units and some are displaying information on cathode ray tubes.

The drive for access to information which characterizes our society today will increase. Many individuals want to possess information which they have a continued need to use. Copying of notes by hand will be superseded by the instant production of duplicates. The increased use of audiovisual media will bring about a similar demand for the production of slides, films, and tapes. Units for copying slides or visuals from books will become standard equipment, as will tape duplication services. Microfiche copies or hard copies from microfiche (or other microforms) will be routine services.

All of these are media services to users with an emphasis on the acquisition, classifying, storage, and distribution of information regardless of the format in which it happens to be stored.

With compatible computer-based systems being established, it will be relatively easy to build the information networks such as those which are already operational in medicine, law, and selected business and military information fields. While most of the initial efforts of technology in the library will emphasize verbal forms of communication, there will be audiovisual formats which will make sound and visual information available just as easily as verbal information and in a variety of locations from a variety of sources.

More important than the details of alternative futures, is the promise that change is going to occur. Assessing your role in that process of change is perhaps the most important consideration at the moment.

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NEW APPROACHES TO STAFF UTILIZATION

> "Commissioner Floyd Christian is considering going back into the classroom." This news was reported several weeks ago in newspapers around the State. The incident which prompted the announcement was a meeting of the National Association of Secondary School Principals in Miami where the Commissioner Christian was speaking. During his speech, he told about Shelly Boone of the State Department of Education who had substituted for his wife in her classroom while she was ill. Mr. Boone was so enthusiastic about his experience that Commissioner Christian said that he was thinking of trying it himself. He also strongly urged that principals go back into the classroom on a regular basis and reinforce their position as instructional leader within the school.

Emphasis on going back into the classroom as "the place where it's at" is an idea which is basic to a number of innovative approaches to staff utilization in elementary and secondary schools. This morning we will examine some of these approaches in terms of their significance for the school library media center staff. The examination will be divided into two parts. First, we will look at approaches to staff utilization which deal solely with the library staff; then, we will examine some general staffing patterns dealing with the whole instructional staff of a school. Staffing patterns in this second category will be analyzed in terms of their involvement of and significance for school library media center staff as stated before. After considering both types of staffing patterns, we should be able to at least begin to answer some questions which should be of great importance to people interested in the future of the school of library media center, such as:

1. How do educators in innovative staffing projects visualize the role of the school library media center staff in educating students?

2. What provision has been made for capitalizing on the varying skills, motivations, talents, interests, career aspirations and decision making ability of media center staff?

3. On what bases can we justify various role variations among school library media center staff?

4. How has current experimentation in staff utilization in the library profession dove-tailed with that being carried on in the education profession?

Before looking at specific staffing approaches, though, let us consider for a few moments why there has been so much pressure from various sectors in our society to try new approaches to staffing in our schools.

In the late fifties and sixties there was an increasing emphasis on meeting the individual needs of students. Many educators became committed to the idea that students hear different drummers, and that even though these drummers are not in Lawrence Welk's band, that students should still be permitted, even encouraged, within reason, to step to their own special tunes. Efforts to accommodate these individual differences have brought about changes in the vertical and horizontal organization of schools. In addition to traditional organizational patterns, we now have multi-graded and non-graded schools, dual progress plans, team teaching, phasing, tracking, large group instruction, small group techniques, independent study time, and a host of other organizational strategies.

With these and other educational, technical, and societal changes have come increasing duties and responsibilities relating to the teaching/learning function. Staggered by additional demands, the omni-capable classroom teacher has had to relinquish her generalist status to the teaching team hopefully containing a media specialist. Even so, it has become apparent that present traditional staffing patterns do not provide the flexibility and innovation that today's progressive instructional strategies call for. Student unrest, rising teacher militancy, the mass exodus of a growing number of our best instructional personnel from education, and the increasing reluctance of taxpayers to support present educational systems are all forces in our contemporary society which attest to needed reform and improvement in education. Great pressure is being placed on schools to compensate for past social injustices, to ameliorate the effects of rapid social change, and to improve upon their performance of traditional academic functions. In the face of all of these things, both the education and library professions are asking themselves how they can most effectively utilize staff to accommodate changing functions, expectations, duties and responsibilities, and where they will find men and women capable of assuming these new roles.

Here in the form of new approaches to staff utilization are some of the answers the library profession has given to these questions followed

by those given by the education profession.

First, let's look at the categories of library personnel suggested in the official statement of the ALA on library education and manpower. Since this approach to staffing is intended for all types of libraries, the categories of library personnel are broad. However, its application suggests some basic elements to be considered in deriving a staffing pattern for a particular type of library. Some of these elements are:

1. Necessity of having both professional and supportive personnel to meet the goals of school library service;

2. Recognition of the fact that skills other than those of librarianship may also have an important contribution to make to the achievement of superior library service;

3. Extension of the top category, usually reserved for administrators, to many areas of special knowledge within librarianship;

4. Designation of the first professional level in the classification as "librarian" requiring a Masters degree;

5. Delegation of some management responsibilities to the "librarian" category;

6. Requirement of education beyond a Masters degree for positions in the top category;

7. Institution of a range of promotional steps within each category to permit a career in rank;

8. Provision for lateral movement to increased responsibilities of equal importance;

9. Stipulation that the top salary in any category should overlap the beginning salary of the next higher category;

10. Suggestion that small or inadequately supported libraries band together to obtain professional services of a library staff.

Ranking of positions in these categories is determined by amount of education and to some extent type and amount of responsibility.

The next two approaches relate directly to the school library media center. They indicate more specifically what positions the school library profession feels are important in providing leadership in design, implementation and evaluation of programs in education which make the fullest use of media.

One of these staffing approaches is found in the Standards for School Media Programs. Here, several levels of positions in instructional media are identified. The broad divisions of this pattern are professional and supportive personnel. Within the professional category there are two levels. They are media specialist and head of the media center. The head of the media center is required to have administrative ability as well as competencies in both school library and audio visual areas if possible. This position is equated with that of department chairman. People employed at the media specialist level are charged with making instructional decision within their purview and supplying appropriate leadership in the educational process. Their status is supposed to be equal to other faculty members with comparable qualifications and responsibilities.

Except for being qualified as a teacher in making decisions affecting instruction, educational qualifications are not mentioned for any of the levels. However, the standards do recognize that "in centers having three or more professional staff members, some classification and gradation of professional education requirements are in order." Specialization is limited to areas within librarianship such as level of school, subject matter or media unless special programs like closed circuit TV operate in the school. In this case specialists are hired to carry on that phase of the media center program. Supportive staff includes media technicians and media aides.

Some areas in which this approach differs from the first one discussed are: professional educational requirements; types of specialists advocated for superior library service; provision for promotion within rank; responsibilities associated with the top category of the staffing pattern; and provision for lateral movement to increased responsibilities of equal importance.

The next staffing approach has emerged from the School Library Manpower Project. This project was initiated in 1968 to determine more effective ways to utilize, educate and recruit school library personnel. Funds for the five year project administered by the American Association of School Librarians were made available through a grant of $1,163,718 from the Knapp Foundation of North Carolina, Inc.

A part of Phase I, completed in 1970, is of special interest to us. It was designed to study the roles and job functions of school library media center personnel in order to derive new occupational definitions. The basic information for these definitions was gathered by the National Education Association Research Division through the Task Analysis Survey. This instrument was aimed at identifying and describing the duties and tasks performed by school library personnel in outstanding library programs in the United States which embody the media center concept.

Upon completion of the survey, a committee of nine members was appointed by the Advisory Committee of the project to make an indepth analysis of the findings of the Task Analysis Survey. They attempted to determine what tasks should be performed and who should perform them in a school library media center with a full staff. Their work resulted in published occupational definitions for the School Library Media Specialist, and Head of the School Library Media Center, the District School Library Media Director, and the School Library Media Technician.

This four element classification provides for two professional categories at the building level--the school library media specialist and the head of the school library media center. The duties of the school library media specialist are similar to those of the media specialist in the Standards for School Media Programs stressing expertise in the broad range of print and non-print materials and equipment. However, this position as envisioned in the School Library Manpower Project is projected as the product of a minimum five-year program. The head of the school library media center is a position which may be assigned to a person who is the only professional in the media center, or to one who supervises a large staff of professional and supportive personnel within a school. The duties of this position are the same as those of the school library media specialist with additional emphasis on administrative and leadership responsibilities. Recommended educational requirements for this position are a sixth year degree, or a doctorate when appropriate. Specializations suggested for these positions are subject area and/or grade level, organization of materials, media production and design, or media technology.

At this point I think it would be advantageous to examine some of the assumptions on which these last two staffing classifications are based. In this way we should be better able to evaluate the validity, effectiveness, and feasibility of these approaches to staffing the school library media center.

The implicit assumptions that are most obvious to me are:

1. School library media specialists are interchangable. This becomes apparent when one sees a beginning professional and a person with fifteen years of experience placed in the same category with the same responsibilities and salary schedul. The salary schedule indicates equal growth for every person each year. Further evidence demonstrating the acceptance of this assumption is the lack of provision for various levels of performance, achievement, or production within a category;

2. Administrative expertise is the basis for promotion;

3. All professional personnel working in the school library should have a school library media specialization;

4. Training of school library media specialists should be based on an examination of present library programs;

5. A school library media specialist can achieve expertise in the broad range of print and non-print materials and the aspects of librarianship which attend them.

Actually, the expanding role of the media specialist, the lack of a career ladder, the low prestige in a number of cases, and the emphasis on increased specialization are key factors pushing us toward new definitions of the once generic term of school librarian.

As we have seen, present staffing patterns in school librarianship have attempted to upgrade traditional approaches, but the school library media specialist's role cannot be substantially modernized unless it is divided into more specialized components and improved skill by skill, responsibility by responsibility rather than in its entirety. Ours is a crucial decision at this point. We must decide if we are willing to make whatever changes are necessary to allow the properly staffed school library media center to realize its true potential in education, or if we will be gently or not so gently nudged aside while other people take over the functions we should and would perform if we were organized to do so.

If we do decide that we are willing to explore innovative changes in staffing patterns of the school library media center, what course of action can we pursue?

It is obvious that we can analyze and discuss the role of the school library in isolation, but it would appear that actual changes in staffing patterns must anticipate changes in personnel in other areas in the school. As Fenwick English has pointed out, the "domino theory" may be defunct in foreign affairs, but is certainly relevant to considering functional changes in organizational roles. Thus, the most effective course of action would seem to be to analyze, evaluate and participate in planning and implementation of innovative staffing approaches which deal with the whole instructional staff to determine what role the school library media center staff can best fulfill in experimental projects.

If we accept this as a valid approach to organizational change within the school library media center, we should spend a few minutes exploring differentiated staffing. This is a concept which could have quite far-reaching effects on the public school scene here in Florida as well as nationally. Even now, as you know, Florida is in the midst of experimentation with field models of differentiated staffing in school systems as a result of a legislative mandate in 1968 and as part of the School Personnel Utilization Program.

Briefly, the School Personnel Utilization Program is a national study funded by the U. S. Office of Education as a part of the Education Professions Development Act. Twenty-three school systems are involved in investigating new staffing models to improve educational opportunities for students and offer greater professional opportunities for teachers. Results from these projects may provide revolutionary new directions in staffing in education. The big question to us is what prospects these projects hold for utilization of the school library media center staff in ways which combine self actualizing incentives with more effective means of serving students and teachers. This question will be examined in greater detail after we briefly review some of the basic aspects of differentiated staffing.

Differentiated staffing is seen as an outgrowth and refinement of team teaching and the idea of "the teacher and his staff" both of which recognize the diversity of teaching tasks and propose use of auxiliary personnel in schools to relieve teachers of non-teaching duties. This concept suggests that teaching be divided into various roles and responsibilities to allow for the different interests, abilities, and ambitions of teachers. Educational functions are then evaluated in terms of levels and kinds of responsibilities and are placed in a hierarchically arranged staffing pattern on the basis of this evaluation.

Dwight Allen, who is generally thought of as the originator of differentiated staffing, states that there are three conditions which are essential to a viable staffing structure. As we look at the Temple City Model, one of the best known and most frequently used models, we can see these conditions illustrated. They are:

1. A minimum of three differentiated staffing levels, each having a different salary range;

2. A maximum salary in the top teaching category that is at least double the maximum for the lowest;

3. Substantial direct teaching responsibility for all teachers at all salary levels, including those in the top brackets.

The Temple City Model also suggests one means of treating differences among the responsibilities of the four teaching levels. The master teacher is responsible for shaping curriculum, researching new instructional techniques, and investigating new modes of learning. The Senior teacher is a learning engineer, a specialist in the diagnosis of learning problems and in the relation of new teaching strategies to the needs of learners. This person can make explicit the concepts and goals of the curriculum. The staff teacher then would be the most likely person to translate curriculum goals and units into highly teachable lesson plans, and along with associate teachers, to assume the major responsibility for carrying them out.

Senior teachers and master teachers would represent no more (and usually less) than 25% of the total faculty. They could not hold tenure in these positions other than that for which their annual performance qualified them. They would hold tenure at the two lower levels, labelled here as staff teacher and associate teacher.

Another aspect of differentiated staffing which differs from traditional staffing patterns is the teacher's involvement in decision making in the school. Formalized ways of involving teachers, such as a faculty senate made up of senior and master teachers, would include allowing them full authority to formulate new educational policies, to make decisions on educational functions and how to carry them out, and to govern the school as an autonomous body within the framework of school board policy.

So far, the utility of differentiated staffing precepts has been explored in terms of the classroom teacher. However, changes taking place in the school library media center as it assumes a greater role in teaching and learning in education, and the kinds of personnel competencies contiguous with that function make it even more imperative that any new design for effective utilization of educational manpower recognize the school library media specialist as a complementary rather than a supplementary part of the teaching team.

Viewing media center personnel in an undifferentiated manner seems incongruous with the basic tenets of differentiated staffing. School media specialists, like classroom teachers, have various areas of specialization, varying levels of responsibilities, much diversity of tasks performed, strengths, weaknesses, career aspirations, achievements and varying motivations. Failure to recognize this on the part of those setting up and implementing staffing models will mean that a significant area in the educational program will not be utilized to its fullest potential.

Realization of the promise differentiated staffing holds for effective utilization of media center staff has prompted me to attempt to devise a differentiated staffing model for selected personnel in this area as the subject of my dissertation.

Phase I, which is now in progress, is a status study of staffing proposals submitted by the 23 participants in the School Personnel Utilization Program. The purposes of this status study are: (1) to determine the degree to which the school library media center staff has been differentiated according to the basic tenets of differentiated staffing; and (2) to provide a framework of staffing models from which to derive elements that can make staffing patterns for media center personnel compatible with those of other members of the instructional staff.

Highlights of the nine projects that I have examined suggest that there has been very little attempt to differentiate school library media center staff according to the basic tenets of differentiated staffing. The most common division of staff in this area was professional and supportive. Very little increase in staff was noted, and in one case, the librarian was eliminated and clerical personnel checked out and shelved books while a team of professional teachers supervised individual research and taught research skills. Another division of staff which frequently occurred was a separation of print and non-print responsibilities.

When job descriptions were listed for these people, their titles were generally media specialist or audiovisual specialist and librarian. There was no instance of more than a two level hierarchical arrangement of media center staff, and in most cases the differentiation was horizontal rather than vertical. There was no differentiated salary range except in one case where the media specialist was paid a higher starting salary than the librarian. Resource specialists were generally either clerical personnel or subject area teachers with no library background.

Another indicator of the role of the media center in this program, can be found in the publications of the Evaluation Training Center at Florida State University which was in charge of the assessment phase of the School Personnel Utilization Program. In discharging this responsibility the center published many volumes analyzing various aspects of differentiated staffing within participating projects. Yet, in all of those hundreds of pages, the school library media center was mentioned only twice and both times as examples in showing teachers how to answer certain questions.

All of these things add up to the fact that the answer to better school libraries does not lie in doing better what we do now, but in redefining the problems and inventing new solutions. Until we accept this and provide direction in instituting and implementing change within the school, the total school organization will remain relatively indifferent to the role of the school library in insuring quality education.

CATEGORIES OF LIBRARY PERSONNEL--PROFESSIONAL

Title		Basic Requirements	Nature of Responsibility
For positions requiring library-related qualifications	For positions requiring nonlibrary-related qualifications		
Senior Librarian	Senior Specialist	In addition to relevant experience, education beyond the M.A., as: post-Master's degree; Ph.D.; relevant continuing education in many forms	Top-level responsibilities, including but not limited to administration; superior knowledge of some aspect of librarianship, or of other subject fields of value to the library
Librarian	Specialist	Master's degree	Professional responsibilities including those of management, which require independent judgment, interpretation of rules and procedures, analysis of library problems and formulation of original and creative solutions for them (normally utilizing knowledge of the subject field represented by the academic degree)

CATEGORIES OF LIBRARY PERSONNEL--SUPPORTIVE

Title		Basic Requirements	Nature of Responsibility
Library Associate	Associate Specialist	Bachelor's degree (with or without course work in library science); OR Bachelor's degree, plus additional academic work short of the Master's degree (in librarianship for the Library Associate; in other relevant subject fields for the Associate Specialist)	Supportive responsibilities at a high level, normally working within the established procedures and techniques, and with some supervision by a professional, but requiring judgment, and subject knowledge such as is represented by a full, four-year college education culminating in the bachelor's degree
Library Technical Assistant	Technical Assistant	At least two years of college-level study; OR A.A. degree, with or without Library Technical Assistant training; OR Post-secondary school training in relevant skills	Tasks performed as supportive staff to Associates and higher ranks, following established rules and procedures, and including, at the top level, supervision of such tasks
Clerk	Clerk	Business school or commercial courses, supplemented by in-service training or on-the-job experience	Clerical assignments as required by the individual library

TEMPLE CITY UNIFIED SCHOOL DISTRICT

A MODEL OF DIFFERENTIATED STAFFING

			NON-TENURE Master Teacher (Doctorate or Equivalent)
		NON-TENURE Senior Teacher (M.S. or Equivalent)	
	TENURE Staff Teacher (B.A. Degree and Calif. Credential)		
TENURE Associate Teacher (A.B. or Intern)			
100% Teaching	100% Teaching Responsibilities	3/5's Staff Teaching Responsibilities	2/5's Staff Teaching Responsibilities
$6,500 -- $9,000	10 months $7,500 -- $11,000	10-11 Months $14,500 -- $17,500	12 Months $15,646 -- $25,000
Academic Assistants A.A. Degree or Equivalent $6,000 -- $7,500			
Educational Technicians $4,000 -- $7,500			
Clerks $5,000 -- $7,500			

Elinor Yungmeyer
Coordinator Instructional Medi
Oak Park Elementary School District 97
Oak Park, Illinois

THE ROLE OF THE SUPERVISOR FOR STAFF DEVELOPMENT

Perhaps today I can help clarify our position in relation to current emphases in education. We often tend to lose our perspective in the daily round of activities, and our grasp of the broader point of view, particularly now with accountability and assessment becoming increasingly important, is of paramount concern. So it is essential that we attempt to re-examine our role, and where we logically stand within the system of education.

Has it struck you, as it has me, that while we have had presentations focused on the establishment of educational goals, CAI and a systems approach for accountability, model building and CAMIS, PPBS and school finance, educational planning and the implications of technology for education, that almost without exception, each speaker has emphasized the human relations aspect as basic to the implementation of any system?

Dean Goldstein presented his 3 A's (acceptability, accountability and accreditability) as the goals of education and the basic elements of innovative undertakings, and indicated these as personal characteristics of significance for all educational leaders.

Mr. Boone reemphasized the idea of human resources and relationships as the key to the pursuit of excellence, and spoke to us of the need for "togetherness" in helping to break the barriers of artificial role determination. He returned again and again to the theme "Above all, you are people -- and the most important ingredient in moving any plan forward."

Mr. Golden proposed that the best means of improving education is having the individual convinced that it is his responsiblity to effect change on the basis of current information, time parameters, resources available and new strategies. Personal commitment was his emphasis.

Dr. Lessinger's presentation covered the "complimentarity" of individual differences and human similarity, and he referred to the implications to be drawn from the Pygmalion studies which indicated teacher perception as the largest factor in determining a child's success in school. What does this say in terms of teacher perception in media programs? He spoke at length on the need for "effective caring", and (again) the need for personal commitment.

Dr. Garvue's recognition of the paramount nature of the human relations factor was stated inpungent terms: "You can't shove change down anyone's throat", but "love people, involve them, change them -- and have a new exciting world".

Mr. Freedman's specific message to us was concerned with the dynamics of human relations, with his keynote being the essential involvement of people in the planning, implementation and evaluation of any activity.

Mr. Wheeler brought the subject closer to home, opening his presentation by pointing out that in Florida recent progress toward the District Comprehensive Education Plan had been weakened by lack of communication and involvement. "There is really no plan until there is full commitment."

However you may feel about McLuhan, I think it is apparent that most of our speakers were making his point that the "medium is the message". In this case the medium (media?) is us -- the supervisor and the media specialist.

Our commitment, professionalism, knowledge, and willingness to involve all concerned is our own message, and the extent to which others perceive us, to this extent are we able to achieve our own professional goals.

In a 1969 ASCD publication, The Supervisor: New Demands, New Dimensions, Dr. Gordon Klopf outlines four major areas of opportunity to be provided for in developing competencies and behavior in people. His article, "Helping Adults Change", lists:

1. Opportunities for becoming aware, for understanding oneself, perceiving how others perceive us.
2. Opportunities to gain a commitment, to change, to acquire an attitude, interest or concern.
3. Opportunities for gaining knowledges, principles and concept.
4. Opportunities to have experiences involving interaction and skill.

What does this say to us in terms of staff development for ourselves?

The media supervisor would do well to look to this, as well as to other writings in the area of human relations.

The media supervisor would also do well to consider the views of Ruth B. Newcomb in her 1968 Florida State University dissertation "The Role Expectations of the County School Library Supervisor and Their Perceived Fulfillment". Newcomb concludes that:

"Satisfaction with the supervisor's leadership is known to depend upon the convergence (or agreement) of the expectations others hold for his role and their perception of what he actually does.

Unless the supervisor can anticipate successfully the expectations held by people in positions related to him (principals, librarians, immediate superiors, etc.), the supervisor will have little success in helping them play their roles successfully, Not only the supervisor, but the objectives and activities of the school system are apt to be rejected should he fail to live up to the expectations held for his role."

You have undoubtedly become aware that I have not specifically defined for you the role of the supervisor in staff development. I've not provided a neat listing of "how-to-do-its" -- for this you can go to the literature, scant though it may be. There are institute reports, reprints of addresses in periodical literature and the like. You are your own best human resource and your experience, I know, has been liberally dotted with staff development activities and techniques which have been successful.

I have attempted to set the problem as it arises from the content of the Institute; provide some background documentation; and, suggest some avenues for you to explore.

In conclusion I'd like to pose some questions to which there are no easy answers, but which may provide some guidelines (not necessarily in rank order) for consideration in developing your own particular role in staff development:

1) In considering staff development, do staff development activities include not only media staff (clerical, paraprofessionals, professionals, technicians, etc.), but classroom teachers, supervisory staff in other subject fields and support services, and administrators? Do parent volunteers from an element of your staff development program?
2) Do I as the supervisor apply staff development techniques to myself? Do I participate in organizations? Supervise upwards as well as downwards? Help myself to redefine my role?
3) What effect does the rate of district staff turn-over have on the ways in which staff development activities are designed and carried out?

4) Are staff development activities based on transmission of information only? Do they include elements designed to upgrade the individual's ability to do the job? To enhance his professional competence? Do they include techniques tending to provide for change and flexibility in attitude?

5) Are staff development activities complementary, integrated elements in a carefully planned staff development program? Does this program include evaluation procedures leading to redesign?

6) Does the staff development program consider the impact of such things as
   - differentiated staffing
   - professional negotiations agreements
   - increasing emphasis on individualization

7) Does it lead to a broad understanding by all concerned in the school district of the goals and objectives of the media program, not just its current status?

8) Does the staff development program have input from all elements of the district staff? Are there opportunities for district staff at all levels to exercise planning and leadership roles?

9) How individualized is the staff development program? Are the same approaches and techniques expected to work with all?

10) Does the staff development program give emphasis to strengthening the image as well as self-concept of building media personnel?

Dr. Elizabeth Mann
former Supervisor of School
Library Programs
Polk and Hillsborough Counties
Florida

WHERE ARE WE? A REPORT OF FLORIDA SCHOOL MEDIA PROGRAMS

This is the first reporting on my dissertation, the general purpose of which was to examine the school library media program in the public schools of Florida during the 1969-1970 school year. The aspects of the program studied were: staff, financial support, collections of materials and equipment, and physical facilities. These four parts of the program were examined with the intent of determining their provision as related: (1) to size of school district (pupil population), (2) to establishment of library media supervision at the system or district level, (3) to varying patterns of grade grouping organization within the schools. The library media centers were also examined to determine if there was a unified program of resources and services utilizing print and non-print materials. Further, a comparison was made with the quantitave criteria of Standards for School Media Programs to determine the adequacy of staff, collections of materials and equipment, financial support, and physical facilities.

Source of Data

Data relating to the public school library media centers in Florida were secured from individual school and district school system reports of 1969-1970 filed with the Department of Education.

During the school year 1969-1970, 1,809 state supported schools in Florida filed accreditation reports with the Department of Education. Of this number, 1,803 were a part of one of Florida's sixty-seven district school systems. The other six schools were:

(1) School for the Deaf and Blind, a state supported school in St. Augustine;
(2) State University School, affiliated with Florida State University in Tallahassee;
(3) P.K. Yonge Laboratory School, affiliated with the University of Florida in Gainesville;
(4) Florida A & M University High School, affiliated with Florida A & M University in Tallahassee;
(5) Tyndall Elementary School at Tyndall Air Force Base in Panama City;
(6) Learning Center in Hollywood at the South Florida State Hospital, Division of Mental Health of the Department of Health and Rehabilitative Services.

Since these schools were of a specialized nature and were not a part of any of the school districts, they were not included in this study.

The information received by the Department of Education from 1,803 schools on the Acc 1 and Acc 3 cards and from 1,787 schools on the Acc 2 cards was tabulated and analyzed for purposes of evaluation of the individual school for accreditation but it was not prepared in a form for public consumption. Access to the information on the accreditation cards pertaining to the library media program was required for pursuit of this study. Permission for such access was received from the Director of the Division of Elementary and Secondary Education in the Department of Education and facilitated by the Administrator of Accreditation.

Assembly of Data

Information about school library media programs that was pertinent to this study was copied from the official computer print-outs of the data at the Department of Education. The data assembled included both the official county and school numbers, student enrollment, number of instructional personnel, and the following information about the library media program:

1. Nature and quantity of media resources including print and non-print materials and the equipment required for their use:
   books
   magazines
   newspapers
   8 mm film loops
   16 mm film
   filmstrips
   globes
   maps
   models, objects, specimens and other realia
   recordings--disc
   recordings--tape
   slides
   transparencies
   dial access-selective
   microfilm projectors
   microfilm readers
   microfilm reader printers
   projectors--filmstrip
   projectors--overhead
   projectors--slide
   projectors 8 mm
   projectors 16 mm
   radio--Am, Fm
   tape recorders--audio
   tape recorders--video
   television--closed circuit

2. Number of staff

   library media specialists
   library media aides
3. Expenditures (average annual expenditure for school media center materials based on previous three years)
4. Supervision at the district school level

The 1,803 schools which had filed Acc 1 and Acc 3 cards from which the above information was obtained were classified for this study in two ways: enrollment and grade grouping. The enrollment ranges were selected to conform with those utilized in national library standards. The division by grades was made to allow for the traditional grade groups and for the newer organization of the middle chool. The grade grouping classification along with the other information obtained from the Department of Education which has been listed above was key punched on data cards. Two data cards were required for each school.

Separate data cards were key punched for each of the sixty-seven school districts. The information included on these data cards was:

1. County number
2. Enrollment
3. Supervision at the district level
4. Totals for each of the items listed above under resources including print and non-print materials and equipment, staff, and expenditures.

Three data cards were required for each of the school districts.

Other information secured from the Department of Education pertained to the library media section of the Florida Accreditation Standards. The 1,787 schools which had filed Acc 2 cards reporting compliance with the criteria of the Florida standards had been classified by grade grouping at the Department of Education. These grade groupings were utilized in this study. This information was hand copied on work sheets for compilation and analysis by calculator.

Analysis of Data

Several computer programs were used to derive univariate tabulations, bivariate tabulations, and multivariate analyses. The several hypotheses were tested by chi square analysis, discriminant function analysis, correlation, and analysis of variance.

Findings of the Study Were:

1. The size of a school district is related to the provision of staff, financial support, and collections of materials and equipment. These findings would indicate that generally the larger school districts make better provisions for staff, financial support, and collection of materials and equipment.
2. Establishment of school library media supervision at the district school level is a contributing factor in the provision of staff, collections of materials and equipment, and financial support. An interesting discovery was that the analysis showed that all 38 cases in the "no-supervisor" school districts were correctly categorized by the discriminate function. There were five of the "with-supervisor" districts which were incorrectly categorized which would indicate that five school districts with supervisory services resemble the no-supervisor group more closely than they do the with-supervisor group.
3. School library media programs are not equally provided in schools with all types of grade grouping organization as evidenced in the provision of staff, financial support, collections of materials and equipment, and physical facilities. An interesting point was that media specialists were better provided in the schools with the 4 to 9 grade organization than were the schools in the traditional K-6 grade pattern. On all items in the Florida Standards concerning the library media center physical facilities a major portion of the schools failed to meet the cirteria. The Schools in the 7 - 12 grade grouping more frequently met the criteria than did the other schools.
4. The school library media program in the public schools of Florida reflects generally a unified concept which embraces audiovisual and printed resources and services.
5. Florida's public schools generally do not meet the quantitative criteria in Standards for School Media Programs for staff, financial support, collections of materials and equipment, and physical facilities.

Professional Staff

The criterion in the National Standards for professional staff is provision of one library media specialist for every 250 students or major fraction thereof. The criterion was met by only 181 schools, of which 177 were schools with less than 376 students.

To serve the total Florida student population of 1,415,096 there were 2,103 library media specialists or one for each 672 students. There were 191 schools, or 11 per cent, which did not report any

library media specialists on their staff. Analysis of the data for these 191 schools showed that (1) by size of enrollment, 104 had fewer than 250 students, and (2) by grade grouping, 145 schools were in the K to 6 grouping.

While there were some small schools in Florida which met the criterion for professional library media staff, there were still approximately one-tenth of the schools totally without the benefit of such services.

Supportive Staff

While the criterion for the supportive library media staff depends on the size of the individual school as well as on the organizational pattern of the library media program and provision of staff and services at the school district level, the National Standards do recommend at least one library media technician and one library media aide for each professional media specialist in schools of 2,000 or fewer students.

The term aide is used in the Florida public schools to identify those persons who are employed in the library media center as supportive staff. There were 1,085 schools employing 1,155.8 library media aides in 1969-1970. The criterion of the National Standards of a ratio of two non-professionals for each professional was not met in Florida schools.

There was a geometric increase in aides as enrollment increased; in other words, the larger schools did employ a higher proportion of aides relative to their enrollment. It can be concluded that approximately one-third of the schools had no library media aides and in the schools where library media aides were provided they were not provided according to the recommended ratio in the National Standards.

Books

There were 37 schools which met the National Standards criterion of at least 6,000-10,000 titles representing 10,000 volumes or 20 volumes per student, whichever is greater. Most of the schools which met this criterion were K to 6 schools with enrollments between 500 and 750 students. The average number of books per child for the entire student population in Florida was 9.6.

Magazines

The largest percentage of schools, 30.1 per cent, received from 26 to 39 magazine subscriptions. A comparison with the criterion in the

National Standards for magazines is a difficult one for several reasons. First, the grade designations in this study are not the same as those in the National Standards. Second, the criterion in the National Standards is in terms of titles and the Florida schools reported number of subscriptions in which case a school could report two subscriptions to one magazine title. Considering these reservations in achieving a valid comparison, it could be stated that 964 of the Florida schools did not meet the criterion of National Standards since all of these schools reported less than 40 magazine subscriptions.

Newspapers

The largest percentage of schools, 31.2 per cent or 532 schools, subscribed to three newspapers. There were 519 schools in the K to 6 grade grouping which met the National Standards' criterion of 3-6 subscriptions for schools with grades K to 6. One hundred and twenty-one schools, or 28 per cent, in the grade grouping 7-12 met or exceeded the criterion of 6-10 subscriptions for the junior high and secondary schools. Again, because of the variation in grade designation between this study and the National Standards, further analysis was not feasible.

It could be concluded, however, that less than one-third of the Florida schools subscribe to the minimum number of newspapers recommended in the National Standards.

Filmstrips, 8 mm Films, Transparencies
Tape and Disc Recordings Slides
Maps Globes Models Realia

Fewer schools, 28 per cent, reported owning 8 mm films as compared with the other eight types of materials listed. A further analysis of the data showed that only seven schools met the criterion of the National Standards for filmstrips. Twenty schools met the criterion for transparencies recommended in the National Standards. The criteria in National Standards for 8 mm films and for tape and disc redordings were not achieved by any school. The collections of globes, maps, models, slides, and realia were not compared with the criterion for each of these in the National Standards because Florida school holdings were reported in such a manner that comparison was not possible. It should be noted that a large percentage did report the provision of globes, maps, models, and slides in the school. While many Florida schools are providing a variety of materials, generally the schools are not providing them in the quantities recommended in National Standards.

Equipment

A comparison between the equipment provision in Florida schools and the recommendations in the National Standards was not feasible. Florida schools reported on equipment by giving totals of each type of equipment owned by the school. The criteria for equipment in the National Standards are stated in quantitative terms on a per teacher station basis. Consequently it was assumed that a valid comparison could not be made of these data.

Financial Support

Only 1,765 schools reported on expenditures for school library media center materials. The amount reported was the average annual expenditure for the previous three years (1968-69, 1967-68, 1966-67). The average annual expenditure was $4.69 per student for the three year period. The recommendation in the National Standards is that

> not less than 6 per cent of the National average for per pupil operational cost (based on average daily attendance) should be spent per year per student . . . . These funds are used to purchase materials for both the individual school and the system media center.

The estimated national average for per pupil operational cost for the same 3 years (1968-69, 1967-68, 1966-67) were $680.00, $634.00, and $629.00, respectively, making $37.74 the estimated national average required to be spent per pupil for media for that three year period.

Assuming that these expenditures would augment the total amount spent on media in Florida schools, the wide disparity between the $4.69 per student reported at the building level and the recommended $37.74 make it apparent that Florida schools did not reach the recommended criterion.

Physical Facilities

To determine the provision of physical facilities the pertinent data contained in school accreditation reports were examined. These reports were related to criteria in the Florida Accreditation Standards. A comparison of findings about the library media center facilities in Florida schools with the criteria in the National Standards was meaningless. The available data were not in terms comparable to those in the National Standards, for the criteria for library media center facilities in the Florida Standards were minimal and were neither as comprehensive nor as specific in designation of space allocation for various functions and activities as the criteria in the National Standards. However, on all items concerning the library media center facilities a major

proportion of the schools failed to meet even the Florida standards. If a major proportion of the schools could not meet the Florida standards, we can assume that they cannot meet the more stringent national standards.

Conclusion

The conclusion to be drawn from all of this is that the hypothesis that Florida public schools meet the quantitative standards for school media programs with regard to (1) staff, (2) collections of materials, (3) financial support, and (4) physical facilities, cannot be accepted. It can be concluded that not one public school in Florida met all of the National Standards in 1969-1970.

Additional Findings

Areas of the public school library media program other than those examined in testing the hypotheses of this study were also examined, since data were accessible and it was considered that this analysis would be useful. These areas were: (1) certification of library media specialists, (2) extent to which selection policies have been developed and adopted, (3) extent to which the library media center is available for use by the faculty and students, (4) extent to which the collections of materials in the library media centers are organized.

Accreditation Report showed that 21 per cent did not have professional staff with a certificate in "library and audio-visual service" from the Florida Department of Education. The largest percentage of schools without certified staff, 45 per cent, was in schools in the K to 9 grade grouping as compared with only 22 per cent in the K to 6 grade grouping and 26 per cent in the K to 12 grade grouping.

The largest percentage of schools with certified professional staff was in the schools in the 7 to 12 grade grouping. Also in these schools was the highest percentage, 84 per cent, of more highly trained library media staff; that is, there were more 7 to 12 schools which reported "at least visual service." Although there are trained library media specialists employed in many Florida schools, there are nearly one-fourth of the schools employing personnel not trained as library media specialists. The importance of professional training should be emphasized in view of the rapid expansion and continuing change in knowledge, communications, curricular development, and technology.

Selection Policies

Although the importance of a written statement of selection policy has been described in professional library literature and with the increase in censorship efforts across the country, there are still

40 per cent of the library media centers in Florida schools which do not have such a policy.

Availability of Library Media Center

Sixty-four per cent reported that the library media center was available to students and teachers throughout each school day with opportunity for independent or small group study at all times.

To determine the availability of the library media center for use other than during the school day, replies to two items on the Accreditation Report were analyzed. The first item was the availability of the library media center to students and teachers at least thirty minutes before and after school hours each school day that students were in attendance. Eighty per cent of the schools answered affirmatively.

The other item examined pertaining to the availability of the library media center was the provision of additional blocks of time for its use by students and teachers. Fewer than half of the schools reported that there was provision of additional blocks of time for use of the center.

The availability of the library media center is an important factor in determining the utility of an educational media program; however, equally important is the type of scheduling of students time. No data were accessible to this researcher to determine in fact, if students were allowed time to use the library media center efficiently during the hours it was open.

Organization

The replies to two items on the Accreditation Report were analyzed to determine the extent to which the collections of materials in the library media centers were organized.

Approximately one-third of the schools reported that their media collections were not organized according to some generally accepted classification scheme and listed in a card catalog of other cataloging system. However, 56 per cent of the schools reported that their resources, including visual materials and reference books were available for circulation, classroom use, and for use within the media center.

It is noteworthy that while the provision of a collection of media organized to be more easily accessible is an objective implied in Florida State Standards, as of 1969-1970, approximately one-third of Florida's schools had not met this requirement for adequate service.

Conclusions

The following conclusions about Florida's school library media program were made after considering the findings of this study:

1. The provision of one library media specialist to 672 students is far below the National Standards and it is significant to note that many small schools lacked professional library media staff and most large schools were not staffed with a sufficient number of library media specialists. It can be assumed that this inadequacy will be reflected in the nature and quality of services offered statewide to faculty and students and could contribute to an inequality of educational opportunity to Florida's students.
2. The provision of supportive staff in the library media centers was not in the ratio recommended by the National Standards. This inadequacy results in curtailed services to faculty and students in costly use of professional staff time in clerical and technical tasks.
3. Although there were some schools which provided print materials (books, newspapers, and magazines) in the quantities recommended by the National Standards, there was on a statewide basis generally inadequate provision of these materials. This inadequacy of educational resources can be expected to be a limiting factor in schools attempting to provide quality education.
4. A large number of schools reported the provision of a variety of non-print materials and the equipment necessary for their use; however, none of the schools provided the materials and equipment in quantities recommended in the National Standards. The statewide provision of the newer audiovisual materials and equipment such as 8 mm films and projectors, closed circuit TV, microfilm printers, and dial access was on a limited basis. This inadequacy of a wide range of resources can hamper seriously achievement of educational goals.
5. Evaluation of facilities is difficult without on-site investigation, for evaluation from data card tabulation and analysis leaves margin for misinterpretation, but it can be concluded that there are serious inadequacies in the provision of physical facilities in library media centers. Although less than one-fifth of the schools lack a library media center, those schools with centers generally do not provide adequate space for seating, conference and listening-viewing activities, production of materials, storage of materials and equipment, and work and maintenance functions.

6. Financial support in Florida for purchase of materials for the library media center is one-fourth the recommended figure in the National Standards. Without adequate financial support for securing materials the school library media centers in Florida cannot hope to meet the curriculum requirements and the interests and needs of faculty and students.
7. The smaller school districts and those districts which had not established library media supervisory services at the district level did not provide staff, financial support, collections of materials and equipment as adequately as did the larger school districts and those which provided supervision for library media programs at the district level.
8. There were variations in the provision of library media programs between schools with differing patterns of grade group organization. Schools in the 7 to 12 grade grouping generally had better provision of staff, physical facilities, and materials and equipment than did schools at different levels or with other types of organization. Schools organized with the newer pattern which includes grades 4 to 9 had more provision made for library media staff than did the traditional grouping of grades K to 6. Schools with the K to 9 and K to 12 pattern of grade organization were provided for less adequately in most areas of the school library media program.

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Florida Department of Education
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"YOU CAN'T TELL WHICH WAY THE TRAIN WENT BY LOOKING AT THE TRACKS"

The first thing I should do, I feel certain, is to clear up the questions in your minds concerning the announced title of this presentation.

I considered several other titles, for instance, one I considered which would relate equally as well as the one I chose to what I am going to say was, "We ought to get a new street light in town. The one we've got now, the light don't hardly reach the ground".

These epigrams are not of my devising. I get them from recorded statements of board members at meetings of local board of education.

Another choice I discarded was, "You can step on my toes all you want, I've got broad shoulders." The same board member went on to record that, "People are only human and tend to be habitual in their habits."

Another board member exasperated with the habitual habits he had observed commented, "If my mother was alive, she would turn over in her grave."

I settled on the title I chose when I read about a meeting at which a short fellow in the back of the room stood up and announced, "You can't tell which way the train went by looking at the tracks."

Then he sat down. Everybody stared at the walls and at one another for awhile, and then the meeting just broke up and everybody wandered off.

I have since discovered that his aphorism is the perfect social response when I have been daydreaming at a meeting, there is a hush, and I suddenly realize that somebody has asked me a question about the discussion.

"You can't tell which way the train went by looking at the tracks", if said slowly and firmly, is always greeted with respectful silence. Many people, being only human, nod wisely, and if someone dares ask you to explain your profound, meaningless statement, just get up and walk out, stopping at the door, looking back at the group, and complaining that, "There is not enough room in here to swing a cat."

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Not only has the citizen's role in education in the United States become minimal, but also the potential role of students has been largly overlooked. There are some programs where the student's voice is beginning to be heard, schools like the Philadelphia Parkway Program where high school students choose their own subjects to study, such alternative educational practices indicate trends away from the often oppressed school styles of the past and base their approach on student motivation studies which indicate that students learn best what they want to learn, and resist imposed programs. Relevance pertains to the closing of the gap between academic learning and the real world--using current newspapers, magazines, television, and movies for content, for example.

Programs aimed toward meeting the student's needs through curriculum designs related to his motivation and imagination are clearly the way for future development. Parents who worry about a student's self discipline will find that it may come about by increasing the student's ability to learn independently. Responsiveness to student needs holds the promise of building responsibility and internal commitment in the student.

Many elementary school, middle school, and high school students across the nation are presently learning in a multitude of new ways ranging from independent study to large group instruction. Comparable to checking out a library book, some students can take home for individual use small cassette tape recorders and playback equipment, records, academic games, and other auto-instructional devices.

One of the promising new inventions is the electro-video tape recorded cartridge, known simply as VTR, with its own electro video tape recorder and playback equipment. This small video tape cartridge will run from 30 to 100 minutes, and can be utilized when attached to a home television set. Japanese industrialists believe that the video cassette will enter the educational market as a very important means of supplementary learning and that it holds great promise for adult education since cassettes can be used at any time in any place. VTR has great promise in its potential for revolutionizing present-day education and conceivably the following changes could materialize. Students could learn at home: The school itself could become an administrative distribution center: Classrooms could disappear: And teachers could make "home calls" or students could make appointments for diagnostic office calls.

The Los Angeles Unified School District has announced plans to develop a computer based management information system that may serve as a model for other larger urban school districts called AIMS (Automated Instructional Materials Services), the system should be capable of providing administrators, teachers, and students with a central source of information about the entire array of learning materials stocked in the school district.

Hopefully this Federally supported project will be the prototype to help educators who are finding it increasingly difficult to keep track of the bewildering variety of books, tapes, films, and other instructional aids that have entered today's school systems in recent years. AIMS will attempt to consolidate information about both audio-visual products and print materials into one easily accessible data bank and thus provide school personnel with a valuable tool for the more effective management and use of instructional resources. Once operational, the AIMS project should be able to support normal ordering and cataloging of learning materials, provide administrators with relevant control data such as analyses of circulation figures, serve as an automated system of locating and requesting films, tapes and other audio visuals for classroom use, produce bibliographies, subject lists, and other fundamental tools for use by teachers and students.

What the educational system in the United States appears to need is a new delivery system. The challenges are great and the time and resources are limited. The logical question in reference to the situation is what are the educational priorities that should be established?

Another of the significant ways in which modern education differs from traditional education is in the variety of new media and new materials that it uses to support instruction. The task of the traditional teacher has been to transfer the knowledge from his head into the heads of the students or to transfer the skills such as reading which the teacher possesses to the child who does not have it, assisted in this task only by textbooks and perhaps by a small variety of other aids.

Modern education is presenting teachers with new and different kinds of material to assist them. These materials are making the teacher's burden more endurable and his task a great deal more sensible. Much of the responsibility for the content of schooling is being transferred from the teacher to the materials and thus to the builders of the curriculum.

Modern technology impinges upon education with increasing force. It demands and provides the means for achievements never before dreamed of. The school of the future will harness every kind of technology to its purpose. With complete control over various media--television, audio tapes, projectors of various kinds--teachers will design lessons for different groups of students and even for individual students--drawing upon an extensive repetoire of sight and sound materials and coming as close as possible to individual diagnosis and prescription for every child.

Make no mistake about it. The American taxpayer is looking for an alternative to the public school. George B. Leonard in his book EDUCATION AND ECSTACY says that when true educational alternatives are at last becoming clear, we may overlook the simplest of all--no schools. If schools are to be significantly better, they must be significantly different. We cannot deal with a new way of accountability by attempting to improve education rather than reform. Rearranging elements within the structure of American education is not enough. Some people think they are making major changes when they are only tidying up the house. We must resist the tendency to want to improve education rather than reform it. We should not do things better. We should do better things. If we are timid about this, we shall produce timid students for a world that demands above all boldness.

When the votes are all in, it may be that alternative educational practices will replace the schools, and those of us who are now occupied with teaching and learning may be relieved because there will be no jobs for us. No longer will the responsibility for providing quality education fall on our shoulders. But the media specialists will not be so lucky. There is no liberation in sight for you. Instead there is only increased responsibility to anticipate. Whether the schools go or not, learning will remain. As long as learning remains, learning resources must accompany it. Wherever educational practices are accomplished, the learning specialists must be there to serve as the learner. It looks as if you are stuck with the job. Technology has put you in the driver's seat. You have suddenly been elevated from custody of the printed word to a place of prominence in education never before enjoyed by a specialist. Look at some of the change. We used to think that to teach and to learn we required a book and the ability to read and write. Now the emphasis on reading and writing is diminishing. Students no longer have to read and write to learn. We can teach them by video and audio. They can respond orally and through a tape recorder requiring not a single read or written word. We are moving toward what Caleb Gattegno calls the subordination of teaching to learning. A new kind of literacy--visual literacy--has emerged.

With the invention of television, illiteracy disappeared from the face of the earth. All that remains is ignorance.

Reading, long hailed as the facilitator of learning, may in effect be an inhibitor of learning. The slow, uneconomical often frustratingly unsatisfying process of teaching a child to read so he could learn has been replaced by a modern, quick, gratifying technique which can operate without using the written word at all.

At a recent meeting of early childhood specialists, I heard a respected psychologist say that he would like to see the teaching of reading postponed until the sixth grade because he could not justify using so much time on an unintellectual activity. Whether we accept this or not, we do know that reading is not a requisite to learning.

Reading is not a curriculum area, it is a skill. To learn to read is like learning to ride a bicycle. Reading is not intellectual exercise. Learning without reading requires thinking. We have depended so long on the textbook that we have become what Marshall McLuhan refers to indelicately as POB's--print oriented bastards. We do not know if reading is teachable, but we know that it is learnable. If we could find what a student does when he learns to read, and could help him do just that, we would have found the best way to teach reading.

The subordination of teaching to learning requires an understanding of the functioning of children. We know, for instance, that no better way has been devised to teach a foreign language than that which is used by the mother and the nursemaid as she teaches the young child to use his native language. We have depended too long on the use of memory which in effect is a weak power of the mind. It is a common fact that man gladly complains of his memory but not of his intelligence.

There was once a good reason for man to choose memory as a channel of instruction in spite of his inadequacies. To understand this we need only look back and place ourselves at a time when ways of recording your events had not yet been invented. In our individual experience, then and now, we find that much of what we know how to do--talk, walk, breathe while eating, etc.--expresses itself in automatic, unconscious functioning often difficult to objectify and thus inaccessible to other people. On the other had, the content of tales, legends, stories, gossip, etc. if repeatedly told gains an existence of its own which we can attempt to preserve per se as we do objects. When recording of events is not

available, the quality of the mind socially most valued was faithfulness (fidelity in the modern electronic sense) and verbatim retention became the highest attribute of a good mind. Since as children we showed retention best after we had learned to talk, verbal retention understandable became the object of the care of teachers whether at home, in the forum or in the school. Tests in such a social setting were tests of retention for those who carried the tribal tradition.

When recording appeared, the attribute of retention could be weaker per se since it was supported by the record, and in fact it soon became second best to the record. But this change did not make society discard the use of memory as a basis for teaching. There still was a stress on traditional transmission. No more individually oriented method of transmission had yet become acceptable to the establishment. A stable society uninterested in questioning tradition was served well by transmission of well preserved statements about wisdom and truth.

In our changing world, one discovers that the ability to forget is indeed as much a capacity as to retain and that there is no value in taking the time to fix in one's mind what no longer obtains. No one in such a world is prepared to pay a heavy price for what is no longer functional. This is the situation today. The success, such as it is, of the present system of education through memory results in fact from our own spontaneous use of ourselves as we go beyond the epistemology that describes our growth as greater and greater retention and shift ourselves to other ways of knowing.

Now what is the alternative to the use of memory? The alternative is to build on strength and the strengths that exist are what Gattegno calls the functionings of children. And they are the basis of all individual education and now can be made the basis of institutional education. What are the functionings of children? They could all become known to us because we all have been children. We have used these functionings. We have them in us, and we did with each such a good job, mastering it so successfully, that we do not have to do it again. On the whole, for example, we learned so well to sit that we don't have to learn to do it over again. Sitting is one of the functionings of children. Nobody ever showed me how to sit. Was any person here ever taught to sit? Each person looked toward himself and saw for himself the problem of being on one's back and of learning to sit. One cannot say that sitting is instinctual. It takes months to learn it. A man is not a little goat who is born having already practiced lots of things and an hour after its birth is standing on its feet. I had to learn how to sit and this I did for myself as everyone of you did for yourself in the crib.

If a child's accomplishments in his crib are not impressive then nothing is impressive. There is no end to the extraordinary functionings we all accomplish as children. One of the most impressive is learning to speak. In his crib, the child learns that if he works on the muscle tone of his lips that it will permit him to gain entry into the field of the sounds of speech. As a child, nobody ever heard a word. In fact, nobody has ever heard a word. Ears hear voices and voices are different and out of all these voices that represent the reality of the environment, each of us has picked up that component that we learned to call a word. Every one of us has recognized words as being something one can add to the functioning of the throat that one owns so that a sound comes out in a particular guise and is recognized by others as having been produced by one's voice. Children do not learn by imitation. They learn to make words through the use of their own mental powers and learn to do it so well that for their whole life thereafter they continue to make words without any conscious preparation. It is an understanding of processes like this that leads us to believe that our current dependence on memory as a learning device should be questioned and that a new emphasis on learning should be substituted. So to talk, a student has to recognize a word within the voice that is used and must learn through his own powers of abstraction the meanings attached to words. And by the time he is two years old he has a functioning as a speaker that should give him a doctorate for no doctoral student in a university has ever done as good a job equivalent to what we all did when we were one and two years of age, finding by ourselves how to acquire the extremely complicated system called language. This brings to mind the old story of the note sent home to a parent by the teacher of a young boy who was having trouble learning Spanish. The teacher had written to the mother "your child is too dumb to learn Spanish." The mother replied in a note to the teacher the next day with the question "What do the dumb children in Spain speak?"

Learning to speak our native language does not impress us very much. Yet as we try to develop new solutions to the problems of education this process gains added significance. Looking at children as owning the powers they actually have and at how they function, we are overwhelmed with the possibilities of education. No longer are we discouraged as we are when we depend on memory as the only basis for progress.

John Holt in his book FREEDOM AND BEYOND writes "for all the talk, experiments, federal fundings, special programs, revolutions in education and so forth of the past years, most of our schools have

changed very little. As a result of this, Holt has become an evangelist for a de-schooled society. Not necessarily a society without any schools at all--although some may still want them--but rather a society in which nobody would be compelled to go to school either by law or by the threat of joblessness, poverty, discrimination, and exclusion from society--all of which are in force today." It would be a society in which there are many paths to learning and advancement, instead of one school path as we now have--a path far too narrow for everyone and one too often and too easily blocked off from the poor.

Schooling as the way to guarantee the future has indeed been a cruelly deceptive myth for the vast majority of the poor--and now for growing numbers of middle class degree holders with no status slots to fit into.

There should of course be many paths to learning and achievement, and Holt advocates more numerous and accessible public libraries, ubiquitous cassette tape recorders for children, store-front reading centers, and volunteer reading guides on the street. These all are useful leads to learning. Although he never mentions educational vouchers, Holt does indicate a base to de-schooling through providing educational resources to learners instead of to schools, and then letting these learners decide whether they want to do their learning in school or in some other place and way. Holt has a marvelously inviting vision and we have a right to expect people like him who see further than we do to show us how to get there. Unfortunately, he has not done enough, nearly enough, hard thinking to be able to show how these individual and community needs could be met by de-schooling. Although he does briefly note that we could give school credit for a much wider variety of activities including work--work that could also involve early apprenticeships and professions as well as other kinds of jobs.

It is Holt's intention that a student should be able to go to any school he wanted within his home state, the school getting aid according to the number of students attending. This would be an incentive to a school to attract students.

Technology may be a powerful factor in the achievement of educational goals where the instructional program is planned by competent designers and the instruments are employed by properly prepared and skilled teachers. The use of advanced techniques and instruction can free teacher time for more intensive individual counseling and tutoring and can extend the range of the teacher's influence by enabling a close relationship between teacher and student. Educational technology

can serve as a vehicle for developing cooperation among teachers and can aid in overcoming the isolation of individual teachers and classrooms that has commonly resulted from traditional patterns of school organization and teaching. A more efficient deployment and specialized use of faculty personnel is one of the new instructional technologies and techniques.

Education equipment and methods may disclose new objectives in education that otherwise may have been ignored. The development of new means often influences the judgment of which ends are worth achieving. More effective teaching techniques may be expected to affect both the goals and substance of education just as improved methods of communication and travel have importantly influenced our values as well as our behavior.

Effective employment of the new instructional technology will demand new skills and at times a more rigorous education of the teacher.

Already a wide gap has opened between the child and the adult teacher in the matter of learning habits. The typical child has been reared in an environment of audio-visual electronics. Most of our teachers matured in a world of magazines and books. The child will read books--often more than his teacher read before him--but it is natural for him to learn through a variety of media. From their preschool years most children have been at home with television and radio, and the most complicated electronic devices often seem less mysterious to them than to their parents and teachers. It is a major educational asset that for the child there is nothing alien about the advanced technical equipment and methods that may be employed in his studies or that may be available for use in his home.

Properly employed, the new instructional technology will assist the teacher, but it will not displace him any more than computers or the other advanced technologies applied to clerical work have displaced white collar workers. Moreover, instructional technology can contribute to the humanization and personalization of the school. The new learning resources should encourage rather than discourage the reading of books. Our schools must be well supplied with printed materials in the form of texts and specially prepared collateral readings. Fortunately, the new texts are generally of superior quality, for they are often the product of collaboration among subject matter specialists, educational theorists, and teachers.

The error which we have often made is the failure to integrate the use of technical equipment into the basic planning of a course of study. This has been in part the fault of schools of education which too often have failed to educate teachers in the effective employment of audio-visual equipment and materials. The suppliers of textbooks and course materials have given insufficient attention to the technique of meshing audio-visual materials with printed texts and programs. As a result, audio-visual instruction has not reached its full potential as a means of enriching subject matter and of conveying information and cultivating attitudes. Valuable equipment often lies idle in school storage closets because its use as an educational instrument have not been understood or appreciated.

There are encouraging signs of progress being made in the use of conventional audio-visual instruction. The educational value of moving pictures, for instance, has been greatly enhanced by extensive experimentation especially in teaching the physical and biological sciences. The new curricula involves texts, guides, achievement tests, examinations and films as well as laboratory apparatus and other materials and in such instruction the printed and audio-visual materials are integrated and the teacher has the advantage of presenting to his students professionally prepared films utilizing the talents of some of the Nation's outstanding scholars.

The problem is not different in the employment of the newer technical instruments such as computers, television, or other sophisticated audio-visual equipment and materials. They make their greatest contributions as educational instruments when developed and employed as integral parts of instructional systems. Television, for instance, should be effectively combined with other instructional techniques, for example, group discussion or laboratory activity. Even the best teachers are capable of profiting from its uses when it is integrated with their work and when they participate in the overall program planning. This participation is essential. The instructional system in which television or other audio-visual media is included requires expertness in teachers, technicians, curriculum planners, and back-up personnel. The teacher in the studio and in the classroom or laboratory must plan and work together as a team.

In weighing the capabilities and limits of the instructional technologies, it should be borne in mind that what works in one case may be of no value in another. To determine the proper use of the

the technical instruments and the role of the teacher in their utilization, these questions should be kept in the forefront of educational planning:

> Can the proposed technique be effectively employed in the cultivation of an open inquiring mind or does it tend to produce conformity, dogmatism and regimentation of thought?
>
> Is it capable of communicating and facilitating an understanding of complex concepts or is its usefulness limited to the management and manipulation of simple ideas?
>
> Is it capable of cultivating sensitive insight, originality, and creative intellectual skills?
>
> Can it be employed to induce and deepen artistic and moral sensitivity and appreciation?
>
> Do the benefits gained justify the cost incurred or is the initial cost affordable?

These questions are fashioned largely in terms of educational ideals that will always be difficult to realize or even approximate. They can serve nevertheless as norms that can be useful in judging the value of instructional techniques.

You have spent a great deal of time this week, I am certain, discussing the same things that I am going to mention to you here today. If there is any advantage in having me speak of them at this late date, it simply is in getting a different point of view. You are the experts in educational media. My competencies lie in the area of curriculum planning.

To the educational media specialists the point of view of the curriculum planner should be of interest and importance. Unless the two work together in planning and employing instructional techniques, the overall goal of improving the quality of instruction cannot be attained. Educational technology provides the means not the ends of instruction. The quality of instruction can be no higher than the level of the teacher's competence and skill and of the substantive materials which he employs. I am speaking now of the software that carries the instructional substance. Unfortunately, more progress has been made in the development of instructional hardware and this gap must be closed.

Unless the planning and implementing of instruction with these new instruments is done jointly by the media specialist and the curriculum planner, the maximum flexibility and versatility required to capture some of the more obvious values of the conventional methods and new patters of instructional organization should be weighed against the values of the new technology.

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